


**ATTACHMENT B**  
**TO APPENDIX III-D.6**  
**HELP MODEL OUTPUTS**

**1. SUMMARY TABLE OF HELP MODEL RUNS**

7-2-2015



*Michael W. Oden*

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Table III-D.6-B.1  
HELP Model Runs  
Summary Table


HELP Model Output Location	Operating Conditions	Liner Configuration Identification in Model Name	Leachate Collection Layer Slope (percent)	Waste Thickness (Feet)	Drainage Length (feet)	Model Run Time (years)	Leachate Recirculation (percent)	Introduced Leachate (gallons/acre-day)	Maximum Head on Liner (in)	Peak Daily Leachate Generation Rate (gal/ac-day)
Attachment D.6-B-2a	Open	A	2.5	10	461	1	100	0	0.004	66.36
Attachment D.6-B-2b	Open	B	2.5	10	614	1	100	0	0.003	54.66
Attachment D.6-B-2c	Open	C	2.0	10	461	1	100	0	0.005	57.20
Attachment D.6-B-2d	Open	D	2.0	10	614	1	100	0	0.005	46.20
Attachment D.6-B-3	Intermediate	A	2.5	190	461	5	100	0	0.009	44.19
Attachment D.6-B-4	Closed	A	2.5	380	461	30	100	0	0	0.00
Attachment D.6-B-5a	Open	A	2.5	20	461	1	100	744	0.004	66.35
Attachment D.6-B-5b	Intermediate	A	2.5	50	461	30	100	744	0.009	44.21
Attachment D.6-B-5c	Intermediate	A	2.5	100	461	30	100	744	0.009	44.21

**ATTACHMENT B**  
**TO APPENDIX III-D.6**  
**HELP MODEL OUTPUTS**

**2. OPEN CONDITIONS**

- A. LEACHATE COLLECTION SYSTEM CONFIGURATION A**
- B. LEACHATE COLLECTION SYSTEM CONFIGURATION B**
- C. LEACHATE COLLECTION SYSTEM CONFIGURATION C**
- D. LEACHATE COLLECTION SYSTEM CONFIGURATION D**

*3-2-2015*



*Michael W. Oden*

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**Pescadito Landfill – Open Conditions: Scenario A**

Slope: 2.5 %  
Drainage Length: 461 FT

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\*\* HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE \*\*  
\*\* HELP MODEL VERSION 3.07 (1 NOVEMBER 1997) \*\*  
\*\* DEVELOPED BY ENVIRONMENTAL LABORATORY \*\*  
\*\* USAE WATERWAYS EXPERIMENT STATION \*\*  
\*\* FOR USEPA RISK REDUCTION ENGINEERING LABORATORY \*\*  
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\*\*\*\*\*  
\*\*\*\*\*

PRECIPITATION DATA FILE: c:\help3\pesc\PRECIP.D4  
TEMPERATURE DATA FILE: c:\help3\pesc\TEMP.D7  
SOLAR RADIATION DATA FILE: c:\help3\pesc\SOL.D13  
EVAPOTRANSPIRATION DATA: c:\help3\pesc\EVAP\_OPN.D11  
SOIL AND DESIGN DATA FILE: c:\help3\pesc\OPEN\_A.D10  
OUTPUT DATA FILE: c:\help3\pesc\OPEN\_A.OUT

TIME: 7:43 DATE: 1/29/2015

\*\*\*\*\*  
TITLE: PESCADITO-OPEN CONDITIONS  
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NOTE: INITIAL MOISTURE CONTENT OF THE LAYERS AND SNOW WATER  
WERE SPECIFIED BY THE USER.

LAYER 1  
-----

TYPE 1 - VERTICAL PERCOLATION LAYER  
MATERIAL TEXTURE NUMBER 0  
THICKNESS = 6.00 INCHES  
POROSITY = 0.4520 VOL/VOL  
FIELD CAPACITY = 0.4110 VOL/VOL  
WILTING POINT = 0.3110 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.4110 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.999999975000E-05 CM/SEC

**Pescadito Landfill – Open Conditions: Scenario A**

LAYER 2  
-----

TYPE 1 - VERTICAL PERCOLATION LAYER

MATERIAL TEXTURE NUMBER 18

THICKNESS = 120.00 INCHES  
POROSITY = 0.6710 VOL/VOL  
FIELD CAPACITY = 0.2920 VOL/VOL  
WILTING POINT = 0.0770 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.2000 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.100000005000E-02 CM/SEC

NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM LAYER # 4  
IS RECIRCULATED INTO THIS LAYER.

LAYER 3  
-----

TYPE 1 - VERTICAL PERCOLATION LAYER

MATERIAL TEXTURE NUMBER 0

THICKNESS = 24.00 INCHES  
POROSITY = 0.4510 VOL/VOL  
FIELD CAPACITY = 0.4110 VOL/VOL  
WILTING POINT = 0.3110 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.4110 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.99999975000E-05 CM/SEC

LAYER 4  
-----

TYPE 2 - LATERAL DRAINAGE LAYER

MATERIAL TEXTURE NUMBER 0

THICKNESS = 0.26 INCHES  
POROSITY = 0.8500 VOL/VOL  
FIELD CAPACITY = 0.0100 VOL/VOL  
WILTING POINT = 0.0050 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.0100 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 3.71399999000 CM/SEC  
SLOPE = 2.50 PERCENT  
DRAINAGE LENGTH = 461.0 FEET

NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM THIS  
LAYER IS RECIRCULATED INTO LAYER # 2.

**Pescadito Landfill – Open Conditions: Scenario A**

LAYER 5  
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TYPE 4 - FLEXIBLE MEMBRANE LINER

MATERIAL TEXTURE NUMBER 35

THICKNESS	=	0.06	INCHES
POROSITY	=	0.0000	VOL/VOL
FIELD CAPACITY	=	0.0000	VOL/VOL
WILTING POINT	=	0.0000	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.0000	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.19999996000E-12	CM/SEC
FML PINHOLE DENSITY	=	3.00	HOLES/ACRE
FML INSTALLATION DEFECTS	=	3.00	HOLES/ACRE
FML PLACEMENT QUALITY	=	3	- GOOD

LAYER 6  
-----

TYPE 3 - BARRIER SOIL LINER

MATERIAL TEXTURE NUMBER 0

THICKNESS	=	24.00	INCHES
POROSITY	=	0.4510	VOL/VOL
FIELD CAPACITY	=	0.4110	VOL/VOL
WILTING POINT	=	0.3110	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.4510	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.100000001000E-06	CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA  
-----

NOTE: SCS RUNOFF CURVE NUMBER WAS USER-SPECIFIED.

SCS RUNOFF CURVE NUMBER	=	85.00	
FRACTION OF AREA ALLOWING RUNOFF	=	0.0	PERCENT
AREA PROJECTED ON HORIZONTAL PLANE	=	1.000	ACRES
EVAPORATIVE ZONE DEPTH	=	60.0	INCHES
INITIAL WATER IN EVAPORATIVE ZONE	=	13.266	INCHES
UPPER LIMIT OF EVAPORATIVE STORAGE	=	38.946	INCHES
LOWER LIMIT OF EVAPORATIVE STORAGE	=	6.024	INCHES
INITIAL SNOW WATER	=	0.000	INCHES
INITIAL WATER IN LAYER MATERIALS	=	47.157	INCHES
TOTAL INITIAL WATER	=	47.157	INCHES
TOTAL SUBSURFACE INFLOW	=	0.00	INCHES/YEAR

**Pescadito Landfill – Open Conditions: Scenario A**

EVAPOTRANSPIRATION AND WEATHER DATA  
-----

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM  
BROWNSVILLE TEXAS

STATION LATITUDE = 27.34 DEGREES  
 MAXIMUM LEAF AREA INDEX = 0.00  
 START OF GROWING SEASON (JULIAN DATE) = 0  
 END OF GROWING SEASON (JULIAN DATE) = 367  
 EVAPORATIVE ZONE DEPTH = 60.0 INCHES  
 AVERAGE ANNUAL WIND SPEED = 11.60 MPH  
 AVERAGE 1ST QUARTER RELATIVE HUMIDITY = 76.00 %  
 AVERAGE 2ND QUARTER RELATIVE HUMIDITY = 75.00 %  
 AVERAGE 3RD QUARTER RELATIVE HUMIDITY = 74.00 %  
 AVERAGE 4TH QUARTER RELATIVE HUMIDITY = 76.00 %

NOTE: PRECIPITATION DATA WAS SYNTHETICALLY GENERATED USING  
COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY PRECIPITATION (INCHES)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
-----	-----	-----	-----	-----	-----
0.82	0.86	0.88	1.37	2.65	2.68
1.93	2.29	3.09	2.41	1.07	0.91

NOTE: TEMPERATURE DATA WAS SYNTHETICALLY GENERATED USING  
COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY TEMPERATURE (DEGREES FAHRENHEIT)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
-----	-----	-----	-----	-----	-----
56.50	61.00	68.80	76.00	82.00	86.50
87.90	87.90	82.90	75.40	65.50	57.70

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING  
COEFFICIENTS FOR BROWNSVILLE TEXAS  
AND STATION LATITUDE = 27.34 DEGREES

**Pescadito Landfill – Open Conditions: Scenario A**

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ANNUAL TOTALS FOR YEAR 1

	INCHES	CU. FEET	PERCENT
PRECIPITATION	16.30	59169.004	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	18.102	65712.023	111.06
RECIRCULATION INTO LAYER 2	0.006864	24.915	0.04
DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 4	0.006864	24.915	0.04
PERC./LEAKAGE THROUGH LAYER 6	0.000001	0.003	0.00
AVG. HEAD ON TOP OF LAYER 5	0.0000		
CHANGE IN WATER STORAGE	-1.802	-6543.026	-11.06
SOIL WATER AT START OF YEAR	47.157	171178.500	
SOIL WATER AT END OF YEAR	45.354	164635.484	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.004	0.00

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AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 1 THROUGH 1

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION						
TOTALS	0.32 0.00	0.49 2.82	0.35 3.54	0.01 2.89	0.00 0.72	3.60 1.56
STD. DEVIATIONS	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00

RUNOFF



**Pescadito Landfill – Open Conditions: Scenario A**

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TOTALS	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATIONS	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
<hr/>						
EVAPOTRANSPIRATION						
<hr/>						
TOTALS	0.935	0.421	0.361	0.294	0.267	3.495
	0.706	1.974	4.407	2.932	0.879	1.432
STD. DEVIATIONS	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
<hr/>						
LATERAL DRAINAGE RECIRCULATED INTO LAYER 2						
<hr/>						
TOTALS	0.0064	0.0003	0.0001	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<hr/>						
LATERAL DRAINAGE COLLECTED FROM LAYER 4						
<hr/>						
TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<hr/>						
LATERAL DRAINAGE RECIRCULATED FROM LAYER 4						
<hr/>						
TOTALS	0.0064	0.0003	0.0001	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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PERCOLATION/LEAKAGE THROUGH LAYER 6						
<hr/>						
TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**Pescadito Landfill – Open Conditions: Scenario A**

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 AVERAGES OF MONTHLY AVERAGED DAILY HEADS (INCHES)  
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DAILY AVERAGE HEAD ON TOP OF LAYER 5

AVERAGES	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 1 THROUGH 1

	INCHES		CU. FEET	PERCENT
	-----		-----	
PRECIPITATION	16.30 ( 0.000)		59169.0	100.00
RUNOFF	0.000 ( 0.0000)		0.00	0.000
EVAPOTRANSPIRATION	18.102 ( 0.0000)		65712.02	111.058
DRAINAGE RECIRCULATED INTO LAYER 2	0.00686 ( 0.00000)		24.915	0.04211
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.00000 ( 0.00000)		0.000	0.00000
DRAINAGE RECIRCULATED FROM LAYER 4	0.00686 ( 0.00000)		<span style="border: 1px solid black; padding: 2px;">24.915</span>	0.04211
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.00000 ( 0.00000)		0.003	0.00000
AVERAGE HEAD ON TOP OF LAYER 5	0.000 ( 0.000)			
CHANGE IN WATER STORAGE	-1.802 ( 0.0000)		-6543.03	-11.058

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**Pescadito Landfill – Open Conditions: Scenario A**

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PEAK DAILY VALUES FOR YEARS	1 THROUGH	1
	(INCHES)	(CU. FT.)
PRECIPITATION	1.32	4791.600
RUNOFF	0.000	0.0000
DRAINAGE RECIRCULATED INTO LAYER 2	0.00244	8.87097
DRAINAGE COLLECTED FROM LAYER 4	0.00000	0.00000
DRAINAGE RECIRCULATED FROM LAYER 4	0.00244	<span style="border: 1px solid black;">8.87097</span>
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.000000	0.00006
AVERAGE HEAD ON TOP OF LAYER 5	0.002	
MAXIMUM HEAD ON TOP OF LAYER 5	<span style="border: 1px solid black;">0.004</span>	
LOCATION OF MAXIMUM HEAD IN LAYER 4 (DISTANCE FROM DRAIN)	0.0 FEET	
SNOW WATER	0.00	0.0000
MAXIMUM VEG. SOIL WATER (VOL/VOL)		0.2345
MINIMUM VEG. SOIL WATER (VOL/VOL)		0.1839

\*\*\* Maximum heads are computed using McEnroe's equations. \*\*\*

Reference: Maximum Saturated Depth over Landfill Liner  
by Bruce M. McEnroe, University of Kansas  
ASCE Journal of Environmental Engineering  
Vol. 119, No. 2, March 1993, pp. 262-270.

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**Pescadito Landfill – Open Conditions: Scenario A**

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FINAL WATER STORAGE AT END OF YEAR 1

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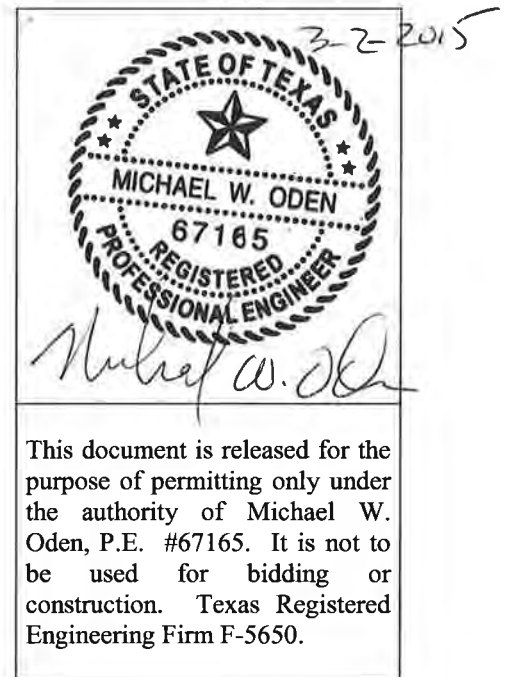
<u>LAYER</u>	<u>(INCHES)</u>	<u>(VOL/VOL)</u>
1	1.5392	0.2565
2	23.1312	<span style="border: 1px solid black;">0.1928</span>
3	9.8571	0.4107
4	0.0026	0.0100
5	0.0000	0.0000
6	10.8240	0.4510
SNOW WATER	0.000	

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**ATTACHMENT B**  
**TO APPENDIX III-D.6**  
**HELP MODEL OUTPUTS**

**2. OPEN CONDITIONS**

- A. LEACHATE COLLECTION SYSTEM CONFIGURATION A
- B. LEACHATE COLLECTION SYSTEM CONFIGURATION B**
- C. LEACHATE COLLECTION SYSTEM CONFIGURATION C
- D. LEACHATE COLLECTION SYSTEM CONFIGURATION D



**Pescadito Landfill – Open Conditions**  
**Scenario B**

Slope: 2.5 %  
Drainage Length: 614 FT

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**
**          HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE
**          HELP MODEL VERSION 3.07 (1 NOVEMBER 1997)
**          DEVELOPED BY ENVIRONMENTAL LABORATORY
**          USAE WATERWAYS EXPERIMENT STATION
**          FOR USEPA RISK REDUCTION ENGINEERING LABORATORY
**
**
*****
*****
```

PRECIPITATION DATA FILE: c:\help3\pesc\PRECIP.D4  
TEMPERATURE DATA FILE: c:\help3\pesc\TEMP.D7  
SOLAR RADIATION DATA FILE: c:\help3\pesc\SOL.D13  
EVAPOTRANSPIRATION DATA: c:\help3\pesc\EVAP\_OPN.D11  
SOIL AND DESIGN DATA FILE: c:\help3\pesc\OPEN\_b.D10  
OUTPUT DATA FILE: c:\help3\pesc\OPEN\_b.OUT

TIME: 7:54 DATE: 1/29/2015

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TITLE: PESCADITO-OPEN CONDITIONS

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NOTE: INITIAL MOISTURE CONTENT OF THE LAYERS AND SNOW WATER  
WERE SPECIFIED BY THE USER.

LAYER 1

TYPE 1 - VERTICAL PERCOLATION LAYER  
MATERIAL TEXTURE NUMBER 0

THICKNESS	=	6.00	INCHES
POROSITY	=	0.4520	VOL/VOL
FIELD CAPACITY	=	0.4110	VOL/VOL
WILTING POINT	=	0.3110	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.4110	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.999999975000E-05	CM/SEC

**Pescadito Landfill – Open Conditions**

**Scenario B**

LAYER 2

TYPE 1 - VERTICAL PERCOLATION LAYER

MATERIAL TEXTURE NUMBER 18

THICKNESS = 120.00 INCHES  
POROSITY = 0.6710 VOL/VOL  
FIELD CAPACITY = 0.2920 VOL/VOL  
WILTING POINT = 0.0770 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.2000 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.100000005000E-02 CM/SEC  
NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM LAYER # 4  
IS RECIRCULATED INTO THIS LAYER.

LAYER 3

TYPE 1 - VERTICAL PERCOLATION LAYER

MATERIAL TEXTURE NUMBER 0

THICKNESS = 24.00 INCHES  
POROSITY = 0.4510 VOL/VOL  
FIELD CAPACITY = 0.4110 VOL/VOL  
WILTING POINT = 0.3110 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.4110 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.999999975000E-05 CM/SEC

LAYER 4

TYPE 2 - LATERAL DRAINAGE LAYER

MATERIAL TEXTURE NUMBER 0

THICKNESS = 0.26 INCHES  
POROSITY = 0.8500 VOL/VOL  
FIELD CAPACITY = 0.0100 VOL/VOL  
WILTING POINT = 0.0050 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.0100 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 3.71399999000 CM/SEC  
SLOPE = 2.50 PERCENT  
DRAINAGE LENGTH = 614.0 FEET  
NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM THIS  
LAYER IS RECIRCULATED INTO LAYER # 2.

LAYER 5

TYPE 4 - FLEXIBLE MEMBRANE LINER

MATERIAL TEXTURE NUMBER 35

THICKNESS = 0.06 INCHES  
POROSITY = 0.0000 VOL/VOL

**Pescadito Landfill – Open Conditions**

**Scenario B**

FIELD CAPACITY = 0.0000 VOL/VOL  
WILTING POINT = 0.0000 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.0000 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.199999996000E-12 CM/SEC  
FML PINHOLE DENSITY = 3.00 HOLES/ACRE  
FML INSTALLATION DEFECTS = 3.00 HOLES/ACRE  
FML PLACEMENT QUALITY = 3 - GOOD

LAYER 6  
-----

TYPE 3 - BARRIER SOIL LINER

MATERIAL TEXTURE NUMBER 0

THICKNESS = 24.00 INCHES  
POROSITY = 0.4510 VOL/VOL  
FIELD CAPACITY = 0.4110 VOL/VOL  
WILTING POINT = 0.3110 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.4510 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.100000001000E-06 CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA  
-----

NOTE: SCS RUNOFF CURVE NUMBER WAS USER-SPECIFIED.

SCS RUNOFF CURVE NUMBER = 85.00  
FRACTION OF AREA ALLOWING RUNOFF = 0.0 PERCENT  
AREA PROJECTED ON HORIZONTAL PLANE = 1.000 ACRES  
EVAPORATIVE ZONE DEPTH = 60.0 INCHES  
INITIAL WATER IN EVAPORATIVE ZONE = 13.266 INCHES  
UPPER LIMIT OF EVAPORATIVE STORAGE = 38.946 INCHES  
LOWER LIMIT OF EVAPORATIVE STORAGE = 6.024 INCHES  
INITIAL SNOW WATER = 0.000 INCHES  
INITIAL WATER IN LAYER MATERIALS = 47.157 INCHES  
TOTAL INITIAL WATER = 47.157 INCHES  
TOTAL SUBSURFACE INFLOW = 0.00 INCHES/YEAR

EVAPOTRANSPIRATION AND WEATHER DATA  
-----

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM  
BROWNSVILLE TEXAS

STATION LATITUDE = 27.34 DEGREES  
MAXIMUM LEAF AREA INDEX = 0.00  
START OF GROWING SEASON (JULIAN DATE) = 0  
END OF GROWING SEASON (JULIAN DATE) = 367  
EVAPORATIVE ZONE DEPTH = 60.0 INCHES  
AVERAGE ANNUAL WIND SPEED = 11.60 MPH



**Pescadito Landfill – Open Conditions**  
**Scenario B**

AVERAGE 1ST QUARTER RELATIVE HUMIDITY = 76.00 %  
 AVERAGE 2ND QUARTER RELATIVE HUMIDITY = 75.00 %  
 AVERAGE 3RD QUARTER RELATIVE HUMIDITY = 74.00 %  
 AVERAGE 4TH QUARTER RELATIVE HUMIDITY = 76.00 %

NOTE: PRECIPITATION DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY PRECIPITATION (INCHES)

<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
0.82	0.86	0.88	1.37	2.65	2.68
1.93	2.29	3.09	2.41	1.07	0.91

NOTE: TEMPERATURE DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY TEMPERATURE (DEGREES FAHRENHEIT)

<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
56.50	61.00	68.80	76.00	82.00	86.50
87.90	87.90	82.90	75.40	65.50	57.70

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS  
 AND STATION LATITUDE = 27.34 DEGREES

\*\*\*\*\*

ANNUAL TOTALS FOR YEAR 1

	<u>INCHES</u>	<u>CU. FEET</u>	<u>PERCENT</u>
PRECIPITATION	16.30	59169.004	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	18.102	65709.180	111.05
RECIRCULATION INTO LAYER 2	0.006863	24.914	0.04
DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.000	0.00

**Pescadito Landfill – Open Conditions**  
**Scenario B**

RECIRCULATION FROM LAYER 4	0.006863	24.914	0.04
PERC./LEAKAGE THROUGH LAYER 6	0.000001	0.005	0.00
AVG. HEAD ON TOP OF LAYER 5	0.0000		
CHANGE IN WATER STORAGE	-1.802	-6540.187	-11.05
SOIL WATER AT START OF YEAR	47.157	171178.500	
SOIL WATER AT END OF YEAR	45.355	164638.312	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.009	0.00

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AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 1 THROUGH 1

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
	-----	-----	-----	-----	-----	-----
<u>PRECIPITATION</u>						
TOTALS	0.32 0.00	0.49 2.82	0.35 3.54	0.01 2.89	0.00 0.72	3.60 1.56
STD. DEVIATIONS	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
<u>RUNOFF</u>						
TOTALS	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
STD. DEVIATIONS	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
<u>EVAPOTRANSPIRATION</u>						
TOTALS	0.935 0.706	0.421 1.974	0.361 4.407	0.294 2.933	0.267 0.877	3.495 1.432
STD. DEVIATIONS	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000

LATERAL DRAINAGE RECIRCULATED INTO LAYER 2



**Pescadito Landfill – Open Conditions**

**Scenario B**

\*\*\*\*\*

AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 1 THROUGH 1

	INCHES	CU. FEET	PERCENT
PRECIPITATION	16.30 ( 0.000)	59169.0	100.00
RUNOFF	0.000 ( 0.0000)	0.00	0.000
EVAPOTRANSPIRATION	18.102 ( 0.0000)	65709.18	111.053
DRAINAGE RECIRCULATED INTO LAYER 2	0.00686 ( 0.00000)	24.914	0.04211
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.00000 ( 0.00000)	0.000	0.00000
DRAINAGE RECIRCULATED FROM LAYER 4	0.00686 ( 0.00000)	24.914	0.04211
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.00000 ( 0.00000)	0.005	0.00001
AVERAGE HEAD ON TOP OF LAYER 5	0.000 ( 0.000)		
CHANGE IN WATER STORAGE	-1.802 ( 0.0000)	-6540.19	-11.053

\*\*\*\*\*

\*\*\*\*\*

PEAK DAILY VALUES FOR YEARS 1 THROUGH 1

	(INCHES)	(CU. FT.)
PRECIPITATION	1.32	4791.600
RUNOFF	0.000	0.0000
DRAINAGE RECIRCULATED INTO LAYER 2	0.00201	7.30717
DRAINAGE COLLECTED FROM LAYER 4	0.00000	0.00000
DRAINAGE RECIRCULATED FROM LAYER 4	0.00201	7.30717
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.000000	0.00006
AVERAGE HEAD ON TOP OF LAYER 5	0.002	
MAXIMUM HEAD ON TOP OF LAYER 5	0.003	

**Pescadito Landfill – Open Conditions**  
**Scenario B**

LOCATION OF MAXIMUM HEAD IN LAYER 4  
(DISTANCE FROM DRAIN) 203.3 FEET

SNOW WATER 0.00 0.0000

MAXIMUM VEG. SOIL WATER (VOL/VOL) 0.2345

MINIMUM VEG. SOIL WATER (VOL/VOL) 0.1840

\*\*\* Maximum heads are computed using McEnroe's equations. \*\*\*

Reference: Maximum Saturated Depth over Landfill Liner  
by Bruce M. McEnroe, University of Kansas  
ASCE Journal of Environmental Engineering  
Vol. 119, No. 2, March 1993, pp. 262-270.

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\*\*\*\*\*

FINAL WATER STORAGE AT END OF YEAR 1

LAYER	(INCHES)	(VOL/VOL)
1	1.5392	0.2565
2	23.1320	0.1928
3	9.8571	0.4107
4	0.0026	0.0100
5	0.0000	0.0000
6	10.8240	0.4510
SNOW WATER	0.000	


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\*\*\*\*\*

**ATTACHMENT B**  
**TO APPENDIX III-D.6**  
**HELP MODEL OUTPUTS**

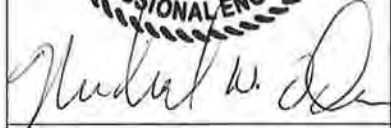
**2. OPEN CONDITIONS**

- A. LEACHATE COLLECTION SYSTEM CONFIGURATION A
- B. LEACHATE COLLECTION SYSTEM CONFIGURATION B
- C. LEACHATE COLLECTION SYSTEM CONFIGURATION C**
- D. LEACHATE COLLECTION SYSTEM CONFIGURATION D

3-2-2015



MICHAEL W. ODEN  
67165  
REGISTERED  
PROFESSIONAL ENGINEER



This document is released for the purpose of permitting only under the authority of Michael W. Oden, P.E. #67165. It is not to be used for bidding or construction. Texas Registered Engineering Firm F-5650.



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**
**          HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE          **
**          HELP MODEL VERSION 3.07  (1 NOVEMBER 1997)              **
**          DEVELOPED BY ENVIRONMENTAL LABORATORY                   **
**          USAE WATERWAYS EXPERIMENT STATION                      **
**          FOR USEPA RISK REDUCTION ENGINEERING LABORATORY        **
**                                                                    **
*****
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```

PRECIPITATION DATA FILE:  C:\HELP3\pesc\PRECIP.D4
TEMPERATURE DATA FILE:   C:\HELP3\pesc\TEMP.D7
SOLAR RADIATION DATA FILE: C:\HELP3\pesc\SOL.D13
EVAPOTRANSPIRATION DATA: C:\HELP3\pesc\EVAP_OPN.D11
SOIL AND DESIGN DATA FILE: C:\HELP3\pesc\OPEN_C.D10
OUTPUT DATA FILE:        C:\HELP3\pesc\OPEN_C.OUT

```

TIME: 7:59 DATE: 2/ 5/2015

```

*****
TITLE:  PESCADITO-OPEN CONDITIONS
*****

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NOTE: INITIAL MOISTURE CONTENT OF THE LAYERS AND SNOW WATER WERE SPECIFIED BY THE USER.

LAYER 1  
-----

```

          TYPE 1 - VERTICAL PERCOLATION LAYER
          MATERIAL TEXTURE NUMBER  0
THICKNESS           =      6.00  INCHES
POROSITY             =      0.4520 VOL/VOL
FIELD CAPACITY      =      0.4110 VOL/VOL
WILTING POINT       =      0.3110 VOL/VOL
INITIAL SOIL WATER  =      0.4110 VOL/VOL

```

Pescadito Landfill – Open Conditions: Scenario C

EFFECTIVE SAT. HYD. COND. = 0.999999975000E-05 CM/SEC

LAYER 2

TYPE 1 - VERTICAL PERCOLATION LAYER

MATERIAL TEXTURE NUMBER 18

THICKNESS = 120.00 INCHES  
POROSITY = 0.6710 VOL/VOL  
FIELD CAPACITY = 0.2920 VOL/VOL  
WILTING POINT = 0.0770 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.2000 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.100000005000E-02 CM/SEC

NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM LAYER # 4  
IS RECIRCULATED INTO THIS LAYER.

LAYER 3

TYPE 1 - VERTICAL PERCOLATION LAYER

MATERIAL TEXTURE NUMBER 0

THICKNESS = 24.00 INCHES  
POROSITY = 0.4510 VOL/VOL  
FIELD CAPACITY = 0.4110 VOL/VOL  
WILTING POINT = 0.3110 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.4110 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.999999975000E-05 CM/SEC

LAYER 4

TYPE 2 - LATERAL DRAINAGE LAYER

MATERIAL TEXTURE NUMBER 0

THICKNESS = 0.26 INCHES  
POROSITY = 0.8500 VOL/VOL  
FIELD CAPACITY = 0.0100 VOL/VOL  
WILTING POINT = 0.0050 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.0100 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 3.71399999000 CM/SEC  
SLOPE = 2.00 PERCENT  
DRAINAGE LENGTH = 461.0 FEET

NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM THIS  
LAYER IS RECIRCULATED INTO LAYER # 2.



Pescadito Landfill – Open Conditions: Scenario C

LAYER 5  
-----

TYPE 4 - FLEXIBLE MEMBRANE LINER

MATERIAL TEXTURE NUMBER 35

THICKNESS	=	0.06	INCHES
POROSITY	=	0.0000	VOL/VOL
FIELD CAPACITY	=	0.0000	VOL/VOL
WILTING POINT	=	0.0000	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.0000	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.199999996000E-12	CM/SEC
FML PINHOLE DENSITY	=	3.00	HOLES/ACRE
FML INSTALLATION DEFECTS	=	3.00	HOLES/ACRE
FML PLACEMENT QUALITY	=	3	- GOOD

LAYER 6  
-----

TYPE 3 - BARRIER SOIL LINER

MATERIAL TEXTURE NUMBER 0

THICKNESS	=	24.00	INCHES
POROSITY	=	0.4510	VOL/VOL
FIELD CAPACITY	=	0.4110	VOL/VOL
WILTING POINT	=	0.3110	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.4510	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.100000001000E-06	CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA  
-----

NOTE: SCS RUNOFF CURVE NUMBER WAS USER-SPECIFIED.

SCS RUNOFF CURVE NUMBER	=	85.00	
FRACTION OF AREA ALLOWING RUNOFF	=	0.0	PERCENT
AREA PROJECTED ON HORIZONTAL PLANE	=	1.000	ACRES
EVAPORATIVE ZONE DEPTH	=	60.0	INCHES
INITIAL WATER IN EVAPORATIVE ZONE	=	13.266	INCHES
UPPER LIMIT OF EVAPORATIVE STORAGE	=	38.946	INCHES
LOWER LIMIT OF EVAPORATIVE STORAGE	=	6.024	INCHES
INITIAL SNOW WATER	=	0.000	INCHES
INITIAL WATER IN LAYER MATERIALS	=	47.157	INCHES
TOTAL INITIAL WATER	=	47.157	INCHES
TOTAL SUBSURFACE INFLOW	=	0.00	INCHES/YEAR

Pescadito Landfill – Open Conditions: Scenario C

EVAPOTRANSPIRATION AND WEATHER DATA  
-----

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM  
BROWNSVILLE TEXAS

STATION LATITUDE = 27.34 DEGREES  
 MAXIMUM LEAF AREA INDEX = 0.00  
 START OF GROWING SEASON (JULIAN DATE) = 0  
 END OF GROWING SEASON (JULIAN DATE) = 367  
 EVAPORATIVE ZONE DEPTH = 60.0 INCHES  
 AVERAGE ANNUAL WIND SPEED = 11.60 MPH  
 AVERAGE 1ST QUARTER RELATIVE HUMIDITY = 76.00 %  
 AVERAGE 2ND QUARTER RELATIVE HUMIDITY = 75.00 %  
 AVERAGE 3RD QUARTER RELATIVE HUMIDITY = 74.00 %  
 AVERAGE 4TH QUARTER RELATIVE HUMIDITY = 76.00 %

NOTE: PRECIPITATION DATA WAS SYNTHETICALLY GENERATED USING  
COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY PRECIPITATION (INCHES)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
0.82	0.86	0.88	1.37	2.65	2.68
1.93	2.29	3.09	2.41	1.07	0.91

NOTE: TEMPERATURE DATA WAS SYNTHETICALLY GENERATED USING  
COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY TEMPERATURE (DEGREES FAHRENHEIT)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
56.50	61.00	68.80	76.00	82.00	86.50
87.90	87.90	82.90	75.40	65.50	57.70

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING  
COEFFICIENTS FOR BROWNSVILLE TEXAS  
AND STATION LATITUDE = 27.34 DEGREES

Pescadito Landfill – Open Conditions: Scenario C

\*\*\*\*\*

MONTHLY TOTALS (IN INCHES) FOR YEAR 1

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.32 0.00	0.49 2.82	0.35 3.54	0.01 2.89	0.00 0.72	3.60 1.56
RUNOFF	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
EVAPOTRANSPIRATION	0.935 0.706	0.421 1.974	0.361 4.423	0.294 2.927	0.267 0.881	3.495 1.432
LATERAL DRAINAGE RECIRCULATED INTO LAYER 2	0.0054 0.0000	0.0009 0.0000	0.0004 0.0000	0.0001 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 4	0.0054 0.0000	0.0009 0.0000	0.0004 0.0000	0.0001 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON TOP OF LAYER 5	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 5	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000

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ANNUAL TOTALS FOR YEAR 1

	INCHES	CU. FEET	PERCENT
PRECIPITATION	16.30	59169.004	100.00

Pescadito Landfill – Open Conditions: Scenario C

RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	18.116	65760.953	111.14
RECIRCULATION INTO LAYER 2	0.006863	24.914	0.04
DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 4	0.006863	24.914	0.04
PERC./LEAKAGE THROUGH LAYER 6	0.000001	0.004	0.00
AVG. HEAD ON TOP OF LAYER 5	0.0000		
CHANGE IN WATER STORAGE	-1.816	-6591.962	-11.14
SOIL WATER AT START OF YEAR	47.157	171178.500	
SOIL WATER AT END OF YEAR	45.341	164586.547	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.010	0.00

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AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 1 THROUGH 1

	<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
<u>PRECIPITATION</u>						
TOTALS	0.32 0.00	0.49 2.82	0.35 3.54	0.01 2.89	0.00 0.72	3.60 1.56
STD. DEVIATIONS	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
<u>RUNOFF</u>						
TOTALS	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
STD. DEVIATIONS	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000

Pescadito Landfill – Open Conditions: Scenario C

EVAPOTRANSPIRATION

TOTALS	0.935	0.421	0.361	0.294	0.267	3.495
	0.706	1.974	4.423	2.927	0.881	1.432
STD. DEVIATIONS	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

LATERAL DRAINAGE RECIRCULATED INTO LAYER 2

TOTALS	0.0054	0.0009	0.0004	0.0001	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

LATERAL DRAINAGE COLLECTED FROM LAYER 4

TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

LATERAL DRAINAGE RECIRCULATED FROM LAYER 4

TOTALS	0.0054	0.0009	0.0004	0.0001	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

PERCOLATION/LEAKAGE THROUGH LAYER 6

TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

-----  
AVERAGES OF MONTHLY AVERAGED DAILY HEADS (INCHES)  
-----

DAILY AVERAGE HEAD ON TOP OF LAYER 5

AVERAGES	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Pescadito Landfill – Open Conditions: Scenario C

0.0000    0.0000    0.0000    0.0000    0.0000    0.0000

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AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS    1 THROUGH    1

	INCHES		CU. FEET	PERCENT
PRECIPITATION	16.30 ( 0.000)		59169.0	100.00
RUNOFF	0.000 ( 0.0000)		0.00	0.000
EVAPOTRANSPIRATION	18.116 ( 0.0000)		65760.95	111.141
DRAINAGE RECIRCULATED INTO LAYER 2	0.00686 ( 0.00000)		24.914	0.04211
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.00000 ( 0.00000)		0.000	0.00000
DRAINAGE RECIRCULATED FROM LAYER 4	0.00686 ( 0.00000)		<span style="border: 1px solid black;">24.914</span>	0.04211
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.00000 ( 0.00000)		0.004	0.00001
AVERAGE HEAD ON TOP OF LAYER 5	0.000 ( 0.000)			
CHANGE IN WATER STORAGE	-1.816 ( 0.0000)		-6591.96	-11.141

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PEAK DAILY VALUES FOR YEARS    1 THROUGH    1

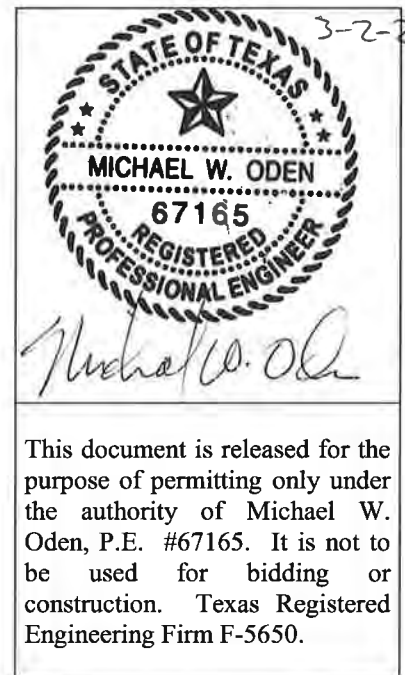
	(INCHES)	(CU. FT.)
PRECIPITATION	1.32	4791.600
RUNOFF	0.000	0.0000
DRAINAGE RECIRCULATED INTO LAYER 2	0.00211	7.64722
DRAINAGE COLLECTED FROM LAYER 4	0.00000	0.00000
DRAINAGE RECIRCULATED FROM LAYER 4	0.00211	<span style="border: 1px solid black;">7.64722</span>
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.000000	0.00006



**ATTACHMENT B**  
**TO APPENDIX III-D.6**  
**HELP MODEL OUTPUTS**

**2. OPEN CONDITIONS**

- A. LEACHATE COLLECTION SYSTEM CONFIGURATION A
- B. LEACHATE COLLECTION SYSTEM CONFIGURATION B
- C. LEACHATE COLLECTION SYSTEM CONFIGURATION C
- D. LEACHATE COLLECTION SYSTEM CONFIGURATION D





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**
**          HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE          **
**          HELP MODEL VERSION 3.07  (1 NOVEMBER 1997)              **
**          DEVELOPED BY ENVIRONMENTAL LABORATORY                   **
**          USAE WATERWAYS EXPERIMENT STATION                      **
**          FOR USEPA RISK REDUCTION ENGINEERING LABORATORY        **
**
**
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```

PRECIPITATION DATA FILE:  C:\HELP3\pesc\PRECIP.D4
TEMPERATURE DATA FILE:   C:\HELP3\pesc\TEMP.D7
SOLAR RADIATION DATA FILE: C:\HELP3\pesc\SOL.D13
EVAPOTRANSPIRATION DATA: C:\HELP3\pesc\EVAP_OPN.D11
SOIL AND DESIGN DATA FILE: C:\HELP3\pesc\OPEN_d.D10
OUTPUT DATA FILE:        C:\HELP3\pesc\OPEN_d.OUT

```

TIME: 8: 3 DATE: 2/ 5/2015

```

*****
TITLE:  PESCADITO-OPEN CONDITIONS
*****

```

NOTE: INITIAL MOISTURE CONTENT OF THE LAYERS AND SNOW WATER WERE SPECIFIED BY THE USER.

LAYER 1  
-----

```

TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 0
THICKNESS                = 6.00 INCHES
POROSITY                  = 0.4520 VOL/VOL
FIELD CAPACITY            = 0.4110 VOL/VOL
WILTING POINT            = 0.3110 VOL/VOL
INITIAL SOIL WATER CONTENT = 0.4110 VOL/VOL
EFFECTIVE SAT. HYD. COND. = 0.99999975000E-05 CM/SEC

```

Pescadito Landfill – Open Conditions: Scenario D

LAYER 2  
-----

TYPE 1 - VERTICAL PERCOLATION LAYER

MATERIAL TEXTURE NUMBER 18

THICKNESS = 120.00 INCHES  
POROSITY = 0.6710 VOL/VOL  
FIELD CAPACITY = 0.2920 VOL/VOL  
WILTING POINT = 0.0770 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.2000 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.100000005000E-02 CM/SEC

NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM LAYER # 4  
IS RECIRCULATED INTO THIS LAYER.

LAYER 3  
-----

TYPE 1 - VERTICAL PERCOLATION LAYER

MATERIAL TEXTURE NUMBER 0

THICKNESS = 24.00 INCHES  
POROSITY = 0.4510 VOL/VOL  
FIELD CAPACITY = 0.4110 VOL/VOL  
WILTING POINT = 0.3110 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.4110 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.999999975000E-05 CM/SEC

LAYER 4  
-----

TYPE 2 - LATERAL DRAINAGE LAYER

MATERIAL TEXTURE NUMBER 0

THICKNESS = 0.26 INCHES  
POROSITY = 0.8500 VOL/VOL  
FIELD CAPACITY = 0.0100 VOL/VOL  
WILTING POINT = 0.0050 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.0100 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 3.71399999000 CM/SEC  
SLOPE = 2.00 PERCENT  
DRAINAGE LENGTH = 614.0 FEET

NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM THIS  
LAYER IS RECIRCULATED INTO LAYER # 2.

LAYER 5  
-----

TYPE 4 - FLEXIBLE MEMBRANE LINER

MATERIAL TEXTURE NUMBER 35

THICKNESS = 0.06 INCHES  
POROSITY = 0.0000 VOL/VOL

Pescadito Landfill – Open Conditions: Scenario D

FIELD CAPACITY = 0.0000 VOL/VOL  
WILTING POINT = 0.0000 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.0000 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.199999996000E-12 CM/SEC  
FML PINHOLE DENSITY = 3.00 HOLES/ACRE  
FML INSTALLATION DEFECTS = 3.00 HOLES/ACRE  
FML PLACEMENT QUALITY = 3 - GOOD

LAYER 6  
-----

TYPE 3 - BARRIER SOIL LINER  
MATERIAL TEXTURE NUMBER 0

THICKNESS = 24.00 INCHES  
POROSITY = 0.4510 VOL/VOL  
FIELD CAPACITY = 0.4110 VOL/VOL  
WILTING POINT = 0.3110 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.4510 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.100000001000E-06 CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA  
-----

NOTE: SCS RUNOFF CURVE NUMBER WAS USER-SPECIFIED.

SCS RUNOFF CURVE NUMBER = 85.00  
FRACTION OF AREA ALLOWING RUNOFF = 0.0 PERCENT  
AREA PROJECTED ON HORIZONTAL PLANE = 1.000 ACRES  
EVAPORATIVE ZONE DEPTH = 60.0 INCHES  
INITIAL WATER IN EVAPORATIVE ZONE = 13.266 INCHES  
UPPER LIMIT OF EVAPORATIVE STORAGE = 38.946 INCHES  
LOWER LIMIT OF EVAPORATIVE STORAGE = 6.024 INCHES  
INITIAL SNOW WATER = 0.000 INCHES  
INITIAL WATER IN LAYER MATERIALS = 47.157 INCHES  
TOTAL INITIAL WATER = 47.157 INCHES  
TOTAL SUBSURFACE INFLOW = 0.00 INCHES/YEAR

EVAPOTRANSPIRATION AND WEATHER DATA  
-----

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM  
BROWNSVILLE TEXAS

STATION LATITUDE = 27.34 DEGREES  
MAXIMUM LEAF AREA INDEX = 0.00  
START OF GROWING SEASON (JULIAN DATE) = 0  
END OF GROWING SEASON (JULIAN DATE) = 367  
EVAPORATIVE ZONE DEPTH = 60.0 INCHES  
AVERAGE ANNUAL WIND SPEED = 11.60 MPH

Pescadito Landfill – Open Conditions: Scenario D

AVERAGE 1ST QUARTER RELATIVE HUMIDITY = 76.00 %  
 AVERAGE 2ND QUARTER RELATIVE HUMIDITY = 75.00 %  
 AVERAGE 3RD QUARTER RELATIVE HUMIDITY = 74.00 %  
 AVERAGE 4TH QUARTER RELATIVE HUMIDITY = 76.00 %

NOTE: PRECIPITATION DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY PRECIPITATION (INCHES)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
0.82	0.86	0.88	1.37	2.65	2.68
1.93	2.29	3.09	2.41	1.07	0.91

NOTE: TEMPERATURE DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY TEMPERATURE (DEGREES FAHRENHEIT)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
56.50	61.00	68.80	76.00	82.00	86.50
87.90	87.90	82.90	75.40	65.50	57.70

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS  
 AND STATION LATITUDE = 27.34 DEGREES

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MONTHLY TOTALS (IN INCHES) FOR YEAR 1

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.32	0.49	0.35	0.01	0.00	3.60
	0.00	2.82	3.54	2.89	0.72	1.56
RUNOFF	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	0.935	0.421	0.361	0.294	0.267	3.495
	0.706	1.974	4.407	2.932	0.858	1.432

Pescadito Landfill – Open Conditions: Scenario D

LATERAL DRAINAGE RECIRCULATED INTO LAYER 2	0.0048	0.0009	0.0006	0.0003	0.0001	0.0001
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 4	0.0048	0.0009	0.0006	0.0003	0.0001	0.0001
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

-----  
MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
-----

AVERAGE DAILY HEAD ON TOP OF LAYER 5	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 5	0.001	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 1

	INCHES	CU. FEET	PERCENT
PRECIPITATION	16.30	59169.004	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	18.082	65637.367	110.93
RECIRCULATION INTO LAYER 2	0.006863	24.911	0.04
DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 4	0.006863	24.911	0.04
PERC./LEAKAGE THROUGH LAYER 6	0.000002	0.007	0.00
AVG. HEAD ON TOP OF LAYER 5	0.0000		
CHANGE IN WATER STORAGE	-1.782	-6468.416	-10.93

Pescadito Landfill – Open Conditions: Scenario D

SOIL WATER AT START OF YEAR	47.157	171178.500	
SOIL WATER AT END OF YEAR	45.375	164710.094	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.048	0.00

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AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 1 THROUGH 1

	<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
<u>PRECIPITATION</u>						
TOTALS	0.32 0.00	0.49 2.82	0.35 3.54	0.01 2.89	0.00 0.72	3.60 1.56
STD. DEVIATIONS	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
<u>RUNOFF</u>						
TOTALS	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
STD. DEVIATIONS	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
<u>EVAPOTRANSPIRATION</u>						
TOTALS	0.935 0.706	0.421 1.974	0.361 4.407	0.294 2.932	0.267 0.858	3.495 1.432
STD. DEVIATIONS	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
<u>LATERAL DRAINAGE RECIRCULATED INTO LAYER 2</u>						
TOTALS	0.0048 0.0000	0.0009 0.0000	0.0006 0.0000	0.0003 0.0000	0.0001 0.0000	0.0001 0.0000
STD. DEVIATIONS	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

LATERAL DRAINAGE COLLECTED FROM LAYER 4

Pescadito Landfill – Open Conditions: Scenario D

TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

LATERAL DRAINAGE RECIRCULATED FROM LAYER 4

TOTALS	0.0048	0.0009	0.0006	0.0003	0.0001	0.0001
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

PERCOLATION/LEAKAGE THROUGH LAYER 6

TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

AVERAGES OF MONTHLY AVERAGED DAILY HEADS (INCHES)

DAILY AVERAGE HEAD ON TOP OF LAYER 5

AVERAGES	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 1 THROUGH 1

	INCHES		CU. FEET	PERCENT
PRECIPITATION	16.30	( 0.000)	59169.0	100.00
RUNOFF	0.000	( 0.0000)	0.00	0.000
EVAPOTRANSPIRATION	18.082	( 0.0000)	65637.37	110.932
DRAINAGE RECIRCULATED	0.00686	( 0.00000)	24.911	0.04210

Pescadito Landfill – Open Conditions: Scenario D

INTO LAYER 2				
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.00000 ( 0.00000)	0.000	0.00000	
DRAINAGE RECIRCULATED FROM LAYER 4	0.00686 ( 0.00000)	<span style="border: 1px solid black;">24.911</span>	0.04210	
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.00000 ( 0.00000)	0.007	0.00001	
AVERAGE HEAD ON TOP OF LAYER 5	0.000 ( 0.000)			
CHANGE IN WATER STORAGE	-1.782 ( 0.0000)	-6468.42	-10.932	

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PEAK DAILY VALUES FOR YEARS		1 THROUGH	1
	(INCHES)	(CU. FT.)	
PRECIPITATION	1.32	4791.600	
RUNOFF	0.000	0.0000	
DRAINAGE RECIRCULATED INTO LAYER 2	0.00170	6.17618	
DRAINAGE COLLECTED FROM LAYER 4	0.00000	0.00000	
DRAINAGE RECIRCULATED FROM LAYER 4	0.00170	<span style="border: 1px solid black;">6.17618</span>	
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.000000	0.00006	
AVERAGE HEAD ON TOP OF LAYER 5	0.002		
MAXIMUM HEAD ON TOP OF LAYER 5	<span style="border: 1px solid black;">0.005</span>		
LOCATION OF MAXIMUM HEAD IN LAYER 4 (DISTANCE FROM DRAIN)	0.0 FEET		
SNOW WATER	0.00	0.0000	
MAXIMUM VEG. SOIL WATER (VOL/VOL)		0.2345	
MINIMUM VEG. SOIL WATER (VOL/VOL)		0.1841	

\*\*\* Maximum heads are computed using McEnroe's equations. \*\*\*



Pescadito Landfill – Open Conditions: Scenario D

Reference: Maximum Saturated Depth over Landfill Liner  
 by Bruce M. McEnroe, University of Kansas  
 ASCE Journal of Environmental Engineering  
 Vol. 119, No. 2, March 1993, pp. 262-270.

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FINAL WATER STORAGE AT END OF YEAR 1

<u>LAYER</u>	<u>(INCHES)</u>	<u>(VOL/VOL)</u>
1	1.5392	0.2565
2	23.1517	0.1929
3	9.8571	0.4107
4	0.0026	0.0100
5	0.0000	0.0000
6	10.8240	0.4510
SNOW WATER	0.000	

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**ATTACHMENT B  
TO APPENDIX III-D.6  
HELP MODEL OUTPUTS**

**3. INTERMEDIATE CONDITIONS**

3-2-2015



*Michael W. Oden*

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**      HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE
**      HELP MODEL VERSION 3.07  (1 NOVEMBER 1997)
**      DEVELOPED BY ENVIRONMENTAL LABORATORY
**      USAE WATERWAYS EXPERIMENT STATION
**      FOR USEPA RISK REDUCTION ENGINEERING LABORATORY
**
**
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PRECIPITATION DATA FILE:  C:\HELP3\pesc\PRECIP.D4
TEMPERATURE DATA FILE:   C:\HELP3\pesc\TEMP.D7
SOLAR RADIATION DATA FILE: C:\HELP3\pesc\SOL.D13
EVAPOTRANSPIRATION DATA:  C:\HELP3\pesc\EVAP_INT.D11
SOIL AND DESIGN DATA FILE: C:\HELP3\pesc\INT.D10
OUTPUT DATA FILE:        C:\HELP3\pesc\INT.OUT

```

TIME: 8:28 DATE: 2/ 5/2015

```

*****
TITLE:  Pescadito Intermediate Conditions
*****

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NOTE: INITIAL MOISTURE CONTENT OF THE LAYERS AND SNOW WATER WERE SPECIFIED BY THE USER.

LAYER 1  
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TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER  0
THICKNESS                = 12.00  INCHES
POROSITY                  = 0.4510 VOL/VOL
FIELD CAPACITY            = 0.4110 VOL/VOL
WILTING POINT            = 0.3110 VOL/VOL
INITIAL SOIL WATER CONTENT = 0.4110 VOL/VOL
EFFECTIVE SAT. HYD. COND. = 0.999999975000E-05 CM/SEC

```

LAYER 2  
-----

TYPE 1 - VERTICAL PERCOLATION LAYER

**Pescadito Landfill – Intermediate Conditions: Scenario A**

MATERIAL TEXTURE NUMBER 18  
THICKNESS = 2280.00 INCHES  
POROSITY = 0.6710 VOL/VOL  
FIELD CAPACITY = 0.2920 VOL/VOL  
WILTING POINT = 0.0770 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.1928 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.100000005000E-02 CM/SEC  
NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM LAYER # 4  
IS RECIRCULATED INTO THIS LAYER.

LAYER 3  
-----

TYPE 1 - VERTICAL PERCOLATION LAYER  
MATERIAL TEXTURE NUMBER 0  
THICKNESS = 24.00 INCHES  
POROSITY = 0.4510 VOL/VOL  
FIELD CAPACITY = 0.4110 VOL/VOL  
WILTING POINT = 0.3110 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.4109 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.999999975000E-05 CM/SEC

LAYER 4  
-----

TYPE 2 - LATERAL DRAINAGE LAYER  
MATERIAL TEXTURE NUMBER 0  
THICKNESS = 0.25 INCHES  
POROSITY = 0.8500 VOL/VOL  
FIELD CAPACITY = 0.0100 VOL/VOL  
WILTING POINT = 0.0050 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.0100 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 3.85999990000 CM/SEC  
SLOPE = 2.50 PERCENT  
DRAINAGE LENGTH = 461.0 FEET  
NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM THIS  
LAYER IS RECIRCULATED INTO LAYER # 2.

LAYER 5  
-----

TYPE 4 - FLEXIBLE MEMBRANE LINER  
MATERIAL TEXTURE NUMBER 35  
THICKNESS = 0.06 INCHES  
POROSITY = 0.0000 VOL/VOL  
FIELD CAPACITY = 0.0000 VOL/VOL  
WILTING POINT = 0.0000 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.0000 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.199999996000E-12 CM/SEC

**Pescadito Landfill – Intermediate Conditions: Scenario A**

FML PINHOLE DENSITY = 3.00 HOLES/ACRE  
FML INSTALLATION DEFECTS = 3.00 HOLES/ACRE  
FML PLACEMENT QUALITY = 3 - GOOD

LAYER 6

TYPE 3 - BARRIER SOIL LINER  
MATERIAL TEXTURE NUMBER 0  
THICKNESS = 24.00 INCHES  
POROSITY = 0.4510 VOL/VOL  
FIELD CAPACITY = 0.4110 VOL/VOL  
WILTING POINT = 0.3110 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.4510 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.100000001000E-06 CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA

NOTE: SCS RUNOFF CURVE NUMBER WAS USER-SPECIFIED.

SCS RUNOFF CURVE NUMBER = 85.00  
FRACTION OF AREA ALLOWING RUNOFF = 75.0 PERCENT  
AREA PROJECTED ON HORIZONTAL PLANE = 1.000 ACRES  
EVAPORATIVE ZONE DEPTH = 60.0 INCHES  
INITIAL WATER IN EVAPORATIVE ZONE = 14.186 INCHES  
UPPER LIMIT OF EVAPORATIVE STORAGE = 37.620 INCHES  
LOWER LIMIT OF EVAPORATIVE STORAGE = 7.428 INCHES  
INITIAL SNOW WATER = 0.000 INCHES  
INITIAL WATER IN LAYER MATERIALS = 465.204 INCHES  
TOTAL INITIAL WATER = 465.204 INCHES  
TOTAL SUBSURFACE INFLOW = 0.00 INCHES/YEAR

EVAPOTRANSPIRATION AND WEATHER DATA

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM  
BROWNSVILLE TEXAS

STATION LATITUDE = 27.34 DEGREES  
MAXIMUM LEAF AREA INDEX = 1.00  
START OF GROWING SEASON (JULIAN DATE) = 0  
END OF GROWING SEASON (JULIAN DATE) = 367  
EVAPORATIVE ZONE DEPTH = 60.0 INCHES  
AVERAGE ANNUAL WIND SPEED = 11.60 MPH  
AVERAGE 1ST QUARTER RELATIVE HUMIDITY = 76.00 %  
AVERAGE 2ND QUARTER RELATIVE HUMIDITY = 75.00 %  
AVERAGE 3RD QUARTER RELATIVE HUMIDITY = 74.00 %  
AVERAGE 4TH QUARTER RELATIVE HUMIDITY = 76.00 %

**Pescadito Landfill – Intermediate Conditions: Scenario A**

NOTE: PRECIPITATION DATA WAS SYNTHETICALLY GENERATED USING  
COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY PRECIPITATION (INCHES)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
0.82	0.86	0.88	1.37	2.65	2.68
1.93	2.29	3.09	2.41	1.07	0.91

NOTE: TEMPERATURE DATA WAS SYNTHETICALLY GENERATED USING  
COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY TEMPERATURE (DEGREES FAHRENHEIT)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
56.50	61.00	68.80	76.00	82.00	86.50
87.90	87.90	82.90	75.40	65.50	57.70

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING  
COEFFICIENTS FOR BROWNSVILLE TEXAS  
AND STATION LATITUDE = 27.34 DEGREES

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MONTHLY TOTALS (IN INCHES) FOR YEAR 1

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.32	0.49	0.35	0.01	0.00	3.60
	0.00	2.82	3.54	2.89	0.72	1.56
RUNOFF	0.000	0.000	0.000	0.000	0.000	1.474
	0.000	0.231	0.544	0.473	0.000	0.000
EVAPOTRANSPIRATION	1.249	0.467	0.436	0.448	0.613	2.935
	0.621	2.369	3.115	2.498	0.754	1.569
LATERAL DRAINAGE RECIRCULATED INTO LAYER 2	0.0043	0.0002	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED	0.0043	0.0002	0.0000	0.0000	0.0000	0.0000

**Pescadito Landfill – Intermediate Conditions: Scenario A**

FROM LAYER 4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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 MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 5	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 5	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 1

	INCHES	CU. FEET	PERCENT
PRECIPITATION	16.30	59169.004	100.00
RUNOFF	2.722	9880.656	16.70
EVAPOTRANSPIRATION	17.074	61977.477	104.75
RECIRCULATION INTO LAYER 2	0.004464	16.203	0.03
DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 4	0.004464	16.203	0.03
PERC./LEAKAGE THROUGH LAYER 6	0.000001	0.002	0.00
AVG. HEAD ON TOP OF LAYER 5	0.0000		
CHANGE IN WATER STORAGE	-3.496	-12689.048	-21.45
SOIL WATER AT START OF YEAR	465.204	1688690.870	
SOIL WATER AT END OF YEAR	461.708	1676001.870	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.082	0.00



**Pescadito Landfill – Intermediate Conditions: Scenario A**

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MONTHLY TOTALS (IN INCHES) FOR YEAR 2

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.00 1.02	2.53 1.46	1.70 7.20	0.01 3.49	4.17 0.29	3.37 0.94
RUNOFF	0.000 0.252	0.128 0.019	0.359 2.315	0.000 0.671	2.145 0.000	1.293 0.000
EVAPOTRANSPIRATION	0.036 0.792	1.535 1.147	2.110 5.027	0.120 2.390	1.384 0.876	2.709 0.933
LATERAL DRAINAGE RECIRCULATED INTO LAYER 2	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 4	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON TOP OF LAYER 5	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 5	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000

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**Pescadito Landfill – Intermediate Conditions: Scenario A**

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ANNUAL TOTALS FOR YEAR 2

	INCHES	CU. FEET	PERCENT
PRECIPITATION	26.18	95033.414	100.00
RUNOFF	7.182	26072.006	27.43
EVAPOTRANSPIRATION	19.060	69186.531	72.80
RECIRCULATION INTO LAYER 2	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 4	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 6	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 5	0.0000		
CHANGE IN WATER STORAGE	-0.062	-225.103	-0.24
SOIL WATER AT START OF YEAR	461.708	1676001.870	
SOIL WATER AT END OF YEAR	461.646	1675776.750	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.019	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 3

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.20 1.52	1.92 1.27	0.63 3.38	0.00 0.62	1.32 0.29	7.54 0.61
RUNOFF	0.000 0.081	0.348 0.000	0.000 0.670	0.000 0.094	0.110 0.000	2.926 0.000
EVAPOTRANSPIRATION	0.188 1.561	1.529 1.141	0.674 2.809	0.019 0.588	1.211 0.107	4.478 0.563

**Pescadito Landfill – Intermediate Conditions: Scenario A**

LATERAL DRAINAGE RECIRCULATED INTO LAYER 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 5	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 5	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 3

	INCHES	CU. FEET	PERCENT
PRECIPITATION	19.30	70059.008	100.00
RUNOFF	4.229	15352.104	21.91
EVAPOTRANSPIRATION	14.868	53970.105	77.04
RECIRCULATION INTO LAYER 2	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 4	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 6	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 5	0.0000		
CHANGE IN WATER STORAGE	0.203	736.679	1.05
SOIL WATER AT START OF YEAR	461.646	1675776.750	

**Pescadito Landfill – Intermediate Conditions: Scenario A**

SOIL WATER AT END OF YEAR	461.849	1676513.370	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.121	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 4

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	1.06 1.57	1.72 0.80	1.42 4.29	0.22 3.33	5.20 0.29	1.02 1.23
RUNOFF	0.000 0.337	0.005 0.079	0.161 0.496	0.000 1.132	1.816 0.000	0.097 0.000
EVAPOTRANSPIRATION	1.066 1.244	1.915 0.742	1.267 3.441	0.223 2.370	3.387 0.387	0.926 1.151
LATERAL DRAINAGE RECIRCULATED INTO LAYER 2	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 4	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON TOP OF LAYER 5	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 5	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000

**Pescadito Landfill – Intermediate Conditions: Scenario A**

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ANNUAL TOTALS FOR YEAR 4

	INCHES	CU. FEET	PERCENT
PRECIPITATION	22.15	80404.516	100.00
RUNOFF	4.123	14966.297	18.61
EVAPOTRANSPIRATION	18.120	65774.766	81.80
RECIRCULATION INTO LAYER 2	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 4	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 6	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 5	0.0000		
CHANGE IN WATER STORAGE	-0.093	-336.546	-0.42
SOIL WATER AT START OF YEAR	461.849	1676513.370	
SOIL WATER AT END OF YEAR	461.757	1676176.870	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.003	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 5

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.77 1.71	0.26 1.62	1.35 2.89	0.00 0.70	3.51 0.59	0.42 0.20
RUNOFF	0.000 0.184	0.000 0.151	0.106 0.666	0.000 0.000	1.403 0.000	0.000 0.000

**Pescadito Landfill – Intermediate Conditions: Scenario A**

EVAPOTRANSPIRATION	0.831	0.364	1.234	0.022	2.089	0.151
	1.808	1.475	2.142	0.581	0.633	0.368
LATERAL DRAINAGE RECIRCULATED INTO LAYER 2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 5	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 5	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 5

	INCHES	CU. FEET	PERCENT
	-----	-----	-----
PRECIPITATION	14.02	50892.621	100.00
RUNOFF	2.510	9110.605	17.90
EVAPOTRANSPIRATION	11.699	42466.410	83.44
RECIRCULATION INTO LAYER 2	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 4	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 6	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 5	0.0000		
CHANGE IN WATER STORAGE	-0.189	-684.391	-1.34

**Pescadito Landfill – Intermediate Conditions: Scenario A**

SOIL WATER AT START OF YEAR	461.757	1676176.870	
SOIL WATER AT END OF YEAR	461.568	1675492.500	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.000	0.00

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AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 1 THROUGH 5

	<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
<u>PRECIPITATION</u>						
TOTALS	0.47 1.16	1.38 1.59	1.09 4.26	0.05 2.21	2.84 0.44	3.19 0.91
STD. DEVIATIONS	0.43 0.70	0.97 0.75	0.57 1.72	0.10 1.43	2.13 0.21	2.81 0.53
<u>RUNOFF</u>						
TOTALS	0.000 0.171	0.096 0.096	0.125 0.938	0.000 0.474	1.095 0.000	1.158 0.000
STD. DEVIATIONS	0.000 0.134	0.151 0.096	0.148 0.773	0.000 0.459	0.986 0.000	1.195 0.000
<u>EVAPOTRANSPIRATION</u>						
TOTALS	0.674 1.205	1.162 1.375	1.144 3.307	0.166 1.685	1.737 0.552	2.240 0.917
STD. DEVIATIONS	0.537 0.501	0.700 0.613	0.648 1.075	0.178 1.006	1.062 0.307	1.718 0.476
<u>LATERAL DRAINAGE RECIRCULATED INTO LAYER 2</u>						
TOTALS	0.0009 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
STD. DEVIATIONS	0.0019 0.0000	0.0001 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

**Pescadito Landfill – Intermediate Conditions: Scenario A**

LATERAL DRAINAGE COLLECTED FROM LAYER 4

TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

LATERAL DRAINAGE RECIRCULATED FROM LAYER 4

TOTALS	0.0009	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0019	0.0001	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

PERCOLATION/LEAKAGE THROUGH LAYER 6

TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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AVERAGES OF MONTHLY AVERAGED DAILY HEADS (INCHES)  
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DAILY AVERAGE HEAD ON TOP OF LAYER 5

AVERAGES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 1 THROUGH 5

	INCHES		CU. FEET	PERCENT
PRECIPITATION	19.59	( 4.794)	71111.7	100.00
RUNOFF	4.153	( 1.8663)	15076.33	21.201
EVAPOTRANSPIRATION	16.164	( 2.9435)	58675.06	82.511



**Pescadito Landfill – Intermediate Conditions: Scenario A**

DRAINAGE RECIRCULATED INTO LAYER 2	0.00089 ( 0.00200)	3.241	0.00456
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.00000 ( 0.00000)	0.000	0.00000
DRAINAGE RECIRCULATED FROM LAYER 4	0.00089 ( 0.00200)	<span style="border: 1px solid black;">3.241</span>	0.00456
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.00000 ( 0.00000)	0.000	0.00000
AVERAGE HEAD ON TOP OF LAYER 5	0.000 ( 0.000)		
CHANGE IN WATER STORAGE	-0.727 ( 1.5544)	-2639.68	-3.712

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PEAK DAILY VALUES FOR YEARS	1 THROUGH	5
	(INCHES)	(CU. FT.)
PRECIPITATION	2.72	9873.601
RUNOFF	1.654	6003.0620
DRAINAGE RECIRCULATED INTO LAYER 2	0.00163	5.90765
DRAINAGE COLLECTED FROM LAYER 4	0.00000	0.00000
DRAINAGE RECIRCULATED FROM LAYER 4	0.00163	<span style="border: 1px solid black;">5.90765</span>
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.000000	0.00004
AVERAGE HEAD ON TOP OF LAYER 5	0.001	
MAXIMUM HEAD ON TOP OF LAYER 5	<span style="border: 1px solid black;">0.009</span>	
LOCATION OF MAXIMUM HEAD IN LAYER 4 (DISTANCE FROM DRAIN)	0.0 FEET	
SNOW WATER	0.00	0.0000
MAXIMUM VEG. SOIL WATER (VOL/VOL)		0.2364
MINIMUM VEG. SOIL WATER (VOL/VOL)		0.1744

**Pescadito Landfill – Intermediate Conditions: Scenario A**

\*\*\* Maximum heads are computed using McEnroe's equations. \*\*\*

Reference: Maximum Saturated Depth over Landfill Liner  
by Bruce M. McEnroe, University of Kansas  
ASCE Journal of Environmental Engineering  
Vol. 119, No. 2, March 1993, pp. 262-270.

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FINAL WATER STORAGE AT END OF YEAR 5

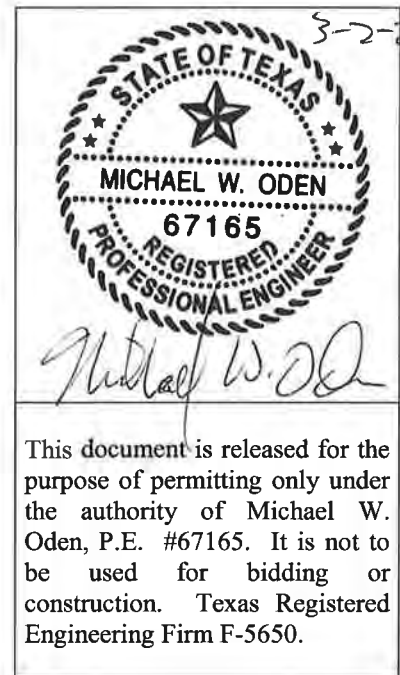
LAYER	(INCHES)	(VOL/VOL)
1	3.3576	0.2798
2	437.5269	0.1919
3	9.8571	0.4107
4	0.0025	0.0100
5	0.0000	0.0000
6	10.8240	0.4510
SNOW WATER	0.000	

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**ATTACHMENT B  
TO APPENDIX III-D.6  
HELP MODEL OUTPUTS**

**4. CLOSED CONDITIONS**



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**
**      HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE
**      HELP MODEL VERSION 3.07  (1 NOVEMBER 1997)
**      DEVELOPED BY ENVIRONMENTAL LABORATORY
**      USAE WATERWAYS EXPERIMENT STATION
**      FOR USEPA RISK REDUCTION ENGINEERING LABORATORY
**
**
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```

PRECIPITATION DATA FILE:  C:\HELP3\pesc\PRECIP.D4
TEMPERATURE DATA FILE:   C:\HELP3\pesc\TEMP.D7
SOLAR RADIATION DATA FILE: C:\HELP3\pesc\SOL.D13
EVAPOTRANSPIRATION DATA: C:\HELP3\pesc\EVAP_CL.D11
SOIL AND DESIGN DATA FILE: C:\HELP3\pesc\CLS_A.D10
OUTPUT DATA FILE:        C:\HELP3\pesc\cls_a.OUT

```

TIME: 9:29 DATE: 2/ 6/2015

```

*****
TITLE:  Pescadito Closed Conditions
*****

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NOTE: INITIAL MOISTURE CONTENT OF THE LAYERS AND SNOW WATER WERE SPECIFIED BY THE USER.

LAYER 1  
-----

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TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 0
THICKNESS                = 7.00 INCHES
POROSITY                  = 0.4510 VOL/VOL
FIELD CAPACITY            = 0.4110 VOL/VOL
WILTING POINT             = 0.3110 VOL/VOL
INITIAL SOIL WATER CONTENT = 0.4110 VOL/VOL
EFFECTIVE SAT. HYD. COND. = 0.999999975000E-05 CM/SEC

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LAYER 2  
-----

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TYPE 1 - VERTICAL PERCOLATION LAYER
MATERIAL TEXTURE NUMBER 0

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**Pescadito Landfill – Closed Conditions: Scenario A**

THICKNESS = 30.00 INCHES  
POROSITY = 0.4510 VOL/VOL  
FIELD CAPACITY = 0.4110 VOL/VOL  
WILTING POINT = 0.3110 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.4110 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.999999975000E-05 CM/SEC

LAYER 3  
-----

TYPE 1 - VERTICAL PERCOLATION LAYER  
MATERIAL TEXTURE NUMBER 18

THICKNESS = 4560.00 INCHES  
POROSITY = 0.6710 VOL/VOL  
FIELD CAPACITY = 0.2920 VOL/VOL  
WILTING POINT = 0.0770 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.1919 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.100000005000E-02 CM/SEC

NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM LAYER # 5  
IS RECIRCULATED INTO THIS LAYER.

LAYER 4  
-----

TYPE 1 - VERTICAL PERCOLATION LAYER  
MATERIAL TEXTURE NUMBER 0

THICKNESS = 24.00 INCHES  
POROSITY = 0.4510 VOL/VOL  
FIELD CAPACITY = 0.4110 VOL/VOL  
WILTING POINT = 0.3110 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.4107 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.999999975000E-05 CM/SEC

LAYER 5  
-----

TYPE 2 - LATERAL DRAINAGE LAYER  
MATERIAL TEXTURE NUMBER 0

THICKNESS = 0.24 INCHES  
POROSITY = 0.8500 VOL/VOL  
FIELD CAPACITY = 0.0100 VOL/VOL  
WILTING POINT = 0.0050 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.0100 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 4.10099983000 CM/SEC  
SLOPE = 2.50 PERCENT  
DRAINAGE LENGTH = 461.0 FEET

NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM THIS  
LAYER IS RECIRCULATED INTO LAYER # 3.

LAYER 6

**Pescadito Landfill – Closed Conditions: Scenario A**

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TYPE 4 - FLEXIBLE MEMBRANE LINER

MATERIAL TEXTURE NUMBER 35

THICKNESS	=	0.06	INCHES
POROSITY	=	0.0000	VOL/VOL
FIELD CAPACITY	=	0.0000	VOL/VOL
WILTING POINT	=	0.0000	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.0000	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.199999996000E-12	CM/SEC
FML PINHOLE DENSITY	=	3.00	HOLES/ACRE
FML INSTALLATION DEFECTS	=	3.00	HOLES/ACRE
FML PLACEMENT QUALITY	=	3 - GOOD	

LAYER 7

-----

TYPE 3 - BARRIER SOIL LINER

MATERIAL TEXTURE NUMBER 0

THICKNESS	=	24.00	INCHES
POROSITY	=	0.4510	VOL/VOL
FIELD CAPACITY	=	0.4110	VOL/VOL
WILTING POINT	=	0.3110	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.4510	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.100000001000E-06	CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA

-----

NOTE: SCS RUNOFF CURVE NUMBER WAS USER-SPECIFIED.

SCS RUNOFF CURVE NUMBER	=	85.00	
FRACTION OF AREA ALLOWING RUNOFF	=	100.0	PERCENT
AREA PROJECTED ON HORIZONTAL PLANE	=	1.000	ACRES
EVAPORATIVE ZONE DEPTH	=	60.0	INCHES
INITIAL WATER IN EVAPORATIVE ZONE	=	19.621	INCHES
UPPER LIMIT OF EVAPORATIVE STORAGE	=	32.120	INCHES
LOWER LIMIT OF EVAPORATIVE STORAGE	=	13.278	INCHES
INITIAL SNOW WATER	=	0.000	INCHES
INITIAL WATER IN LAYER MATERIALS	=	910.954	INCHES
TOTAL INITIAL WATER	=	910.954	INCHES
TOTAL SUBSURFACE INFLOW	=	0.00	INCHES/YEAR

EVAPOTRANSPIRATION AND WEATHER DATA

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NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM  
BROWNSVILLE TEXAS

STATION LATITUDE = 27.34 DEGREES

**Pescadito Landfill – Closed Conditions: Scenario A**

MAXIMUM LEAF AREA INDEX = 2.00  
 START OF GROWING SEASON (JULIAN DATE) = 0  
 END OF GROWING SEASON (JULIAN DATE) = 367  
 EVAPORATIVE ZONE DEPTH = 60.0 INCHES  
 AVERAGE ANNUAL WIND SPEED = 11.60 MPH  
 AVERAGE 1ST QUARTER RELATIVE HUMIDITY = 76.00 %  
 AVERAGE 2ND QUARTER RELATIVE HUMIDITY = 75.00 %  
 AVERAGE 3RD QUARTER RELATIVE HUMIDITY = 74.00 %  
 AVERAGE 4TH QUARTER RELATIVE HUMIDITY = 76.00 %

NOTE: PRECIPITATION DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY PRECIPITATION (INCHES)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
0.82	0.86	0.88	1.37	2.65	2.68
1.93	2.29	3.09	2.41	1.07	0.91

NOTE: TEMPERATURE DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY TEMPERATURE (DEGREES FAHRENHEIT)

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
56.50	61.00	68.80	76.00	82.00	86.50
87.90	87.90	82.90	75.40	65.50	57.70

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS  
 AND STATION LATITUDE = 27.34 DEGREES

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MONTHLY TOTALS (IN INCHES) FOR YEAR 1

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.32	0.49	0.35	0.01	0.00	3.60
	0.00	2.82	3.54	2.89	0.72	1.56



**Pescadito Landfill – Closed Conditions: Scenario A**

RUNOFF	0.000	0.000	0.000	0.000	0.000	1.546
	0.000	0.141	0.693	0.606	0.000	0.000
EVAPOTRANSPIRATION	1.450	2.294	2.714	0.900	0.000	2.054
	0.000	2.452	2.926	2.386	0.681	1.548
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 1

	INCHES	CU. FEET	PERCENT
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PRECIPITATION	16.30	59169.004	100.00
RUNOFF	2.987	10841.753	18.32
EVAPOTRANSPIRATION	19.404	70436.203	119.04
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		

**Pescadito Landfill – Closed Conditions: Scenario A**

CHANGE IN WATER STORAGE	-6.091	-22109.014	-37.37
SOIL WATER AT START OF YEAR	910.954	3306763.500	
SOIL WATER AT END OF YEAR	904.864	3284654.500	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.058	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 2

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.00 1.02	2.53 1.46	1.70 7.20	0.01 3.49	4.17 0.29	3.37 0.94
RUNOFF	0.000 0.317	0.138 0.000	0.436 3.067	0.000 0.933	2.807 0.000	1.676 0.000
EVAPOTRANSPIRATION	0.096 0.703	1.519 1.178	2.070 4.415	0.077 1.922	0.890 0.925	2.166 0.799
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
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**Pescadito Landfill – Closed Conditions: Scenario A**

STD. DEVIATION OF DAILY	0.000	0.000	0.000	0.000	0.000	0.000
HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 2

	INCHES	CU. FEET	PERCENT
PRECIPITATION	26.18	95033.414	100.00
RUNOFF	9.375	34030.039	35.81
EVAPOTRANSPIRATION	16.761	60843.480	64.02
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	0.044	159.965	0.17
SOIL WATER AT START OF YEAR	904.864	3284654.500	
SOIL WATER AT END OF YEAR	904.908	3284814.500	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.069	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 3

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.20	1.92	0.63	0.00	1.32	7.54
	1.52	1.27	3.38	0.62	0.29	0.61
RUNOFF	0.000	0.411	0.000	0.000	0.153	3.852

**Pescadito Landfill – Closed Conditions: Scenario A**

	0.048	0.000	0.766	0.118	0.000	0.000
EVAPOTRANSPIRATION	0.290	1.546	0.643	0.000	1.167	3.687
	1.446	1.168	2.696	0.549	0.157	0.538
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 3

	INCHES	CU. FEET	PERCENT
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PRECIPITATION	19.30	70059.008	100.00
RUNOFF	5.348	19414.209	27.71
EVAPOTRANSPIRATION	13.887	50408.910	71.95
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		

**Pescadito Landfill – Closed Conditions: Scenario A**

CHANGE IN WATER STORAGE	0.065	235.737	0.34
SOIL WATER AT START OF YEAR	904.908	3284814.500	
SOIL WATER AT END OF YEAR	904.973	3285050.250	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.154	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 4

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	1.06 1.57	1.72 0.80	1.42 4.29	0.22 3.33	5.20 0.29	1.02 1.23
RUNOFF	0.000 0.421	0.012 0.082	0.183 0.586	0.000 1.516	2.389 0.000	0.125 0.000
EVAPOTRANSPIRATION	0.979 1.205	1.994 0.718	1.237 3.249	0.203 1.631	2.828 0.853	0.839 0.884
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
STD. DEVIATION OF DAILY	0.000	0.000	0.000	0.000	0.000	0.000

**Pescadito Landfill – Closed Conditions: Scenario A**

HEAD ON TOP OF LAYER 6            0.000   0.000   0.000   0.000   0.000   0.000

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ANNUAL TOTALS FOR YEAR 4

	INCHES	CU. FEET	PERCENT
PRECIPITATION	22.15	80404.516	100.00
RUNOFF	5.313	19287.629	23.99
EVAPOTRANSPIRATION	16.620	60330.008	75.03
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	0.217	786.973	0.98
SOIL WATER AT START OF YEAR	904.973	3285050.250	
SOIL WATER AT END OF YEAR	905.189	3285837.250	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.097	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 5

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JAN/JUL   FEB/AUG   MAR/SEP   APR/OCT   MAY/NOV   JUN/DEC  
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**Pescadito Landfill – Closed Conditions: Scenario A**

PRECIPITATION	0.77	0.26	1.35	0.00	3.51	0.42
	1.71	1.62	2.89	0.70	0.59	0.20
RUNOFF	0.000	0.000	0.070	0.000	1.882	0.000
	0.211	0.176	0.805	0.000	0.000	0.000
EVAPOTRANSPIRATION	1.036	0.416	1.281	0.000	1.628	0.143
	1.733	1.488	2.047	0.464	0.703	0.361
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 5

	INCHES	CU. FEET	PERCENT
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PRECIPITATION	14.02	50892.621	100.00
RUNOFF	3.144	11411.556	22.42
EVAPOTRANSPIRATION	11.298	41013.430	80.59
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00

**Pescadito Landfill – Closed Conditions: Scenario A**

PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	-0.422	-1532.514	-3.01
SOIL WATER AT START OF YEAR	905.189	3285837.250	
SOIL WATER AT END OF YEAR	904.767	3284304.750	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.151	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 6

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.88 1.61	1.39 2.56	0.71 4.85	2.86 3.49	0.19 1.70	4.18 0.85
RUNOFF	0.041 0.495	0.398 0.568	0.000 1.881	1.685 1.593	0.000 0.572	2.397 0.000
EVAPOTRANSPIRATION	0.350 1.407	1.480 1.817	0.710 2.712	1.175 2.290	0.190 0.847	1.491 0.925
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)



**Pescadito Landfill – Closed Conditions: Scenario A**

AVERAGE DAILY HEAD ON	0.000	0.000	0.000	0.000	0.000	0.000
TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY	0.000	0.000	0.000	0.000	0.000	0.000
HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 6

	INCHES	CU. FEET	PERCENT
PRECIPITATION	25.27	91730.102	100.00
RUNOFF	9.631	34958.809	38.11
EVAPOTRANSPIRATION	15.394	55878.734	60.92
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	0.246	892.656	0.97
SOIL WATER AT START OF YEAR	904.767	3284304.750	
SOIL WATER AT END OF YEAR	905.013	3285197.500	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.097	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 7

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.53	0.84	0.18	0.00	1.84	4.13

**Pescadito Landfill – Closed Conditions: Scenario A**

	0.98	1.79	6.42	4.31	2.12	1.13
RUNOFF	0.000	0.015	0.000	0.000	0.312	1.585
	0.267	0.034	2.229	1.755	0.091	0.000
EVAPOTRANSPIRATION	0.776	0.825	0.180	0.000	1.219	2.854
	0.713	1.756	3.961	2.677	1.661	1.126
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 7

	INCHES	CU. FEET	PERCENT
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PRECIPITATION	24.27	88100.094	100.00
RUNOFF	6.288	22823.758	25.91
EVAPOTRANSPIRATION	17.748	64425.820	73.13
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00

**Pescadito Landfill – Closed Conditions: Scenario A**

AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	0.234	850.338	0.97
SOIL WATER AT START OF YEAR	905.013	3285197.500	
SOIL WATER AT END OF YEAR	905.247	3286047.750	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.180	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 8

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.61 7.47	1.49 0.96	0.34 2.83	2.35 0.51	0.73 0.37	0.44 0.36
RUNOFF	0.000 5.067	0.172 0.000	0.000 0.725	1.041 0.000	0.000 0.000	0.000 0.000
EVAPOTRANSPIRATION	0.903 2.403	1.506 0.859	0.340 2.189	1.309 0.526	0.730 0.302	0.440 0.345
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	0.000	0.000	0.000	0.000	0.000	0.000
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**Pescadito Landfill – Closed Conditions: Scenario A**

TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 8

	INCHES	CU. FEET	PERCENT
PRECIPITATION	18.46	67009.797	100.00
RUNOFF	7.006	25430.369	37.95
EVAPOTRANSPIRATION	11.852	43021.004	64.20
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	-0.397	-1441.454	-2.15
SOIL WATER AT START OF YEAR	905.247	3286047.750	
SOIL WATER AT END OF YEAR	904.850	3284606.250	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.121	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 9

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.61	0.78	0.09	0.53	0.52	3.57
	0.85	4.09	2.09	0.88	3.26	0.51

**Pescadito Landfill – Closed Conditions: Scenario A**

RUNOFF	0.000	0.000	0.000	0.034	0.000	1.165
	0.287	2.561	1.125	0.042	0.786	0.013
EVAPOTRANSPIRATION	0.625	0.847	0.091	0.496	0.520	2.405
	0.563	1.529	0.965	0.838	1.036	0.834
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 9

	INCHES	CU. FEET	PERCENT
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PRECIPITATION	17.78	64541.402	100.00
RUNOFF	6.013	21825.824	33.82
EVAPOTRANSPIRATION	10.749	39018.785	60.46
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00

**Pescadito Landfill – Closed Conditions: Scenario A**

AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	1.018	3696.910	5.73
SOIL WATER AT START OF YEAR	904.850	3284606.250	
SOIL WATER AT END OF YEAR	905.869	3288303.250	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.118	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 10

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.95 2.27	0.33 0.69	1.00 3.75	3.20 4.04	0.00 1.04	5.40 1.08
RUNOFF	0.000 1.447	0.000 0.000	0.000 1.212	1.042 1.143	0.000 0.000	3.199 0.095
EVAPOTRANSPIRATION	1.223 1.772	1.159 0.690	1.000 1.509	1.816 2.451	0.342 1.507	1.252 0.916
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
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**Pescadito Landfill – Closed Conditions: Scenario A**

STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6      0.000   0.000   0.000   0.000   0.000   0.000  
 0.000   0.000   0.000   0.000   0.000   0.000

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ANNUAL TOTALS FOR YEAR 10

	INCHES	CU. FEET	PERCENT
PRECIPITATION	23.75	86212.500	100.00
RUNOFF	8.137	29538.715	34.26
EVAPOTRANSPIRATION	15.635	56756.836	65.83
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	-0.023	-83.084	-0.10
SOIL WATER AT START OF YEAR	905.869	3288303.250	
SOIL WATER AT END OF YEAR	905.846	3288220.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.031	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 11

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	1.55 3.52	0.97 4.21	0.05 2.13	0.98 0.31	1.85 0.90	0.95 0.53

**Pescadito Landfill – Closed Conditions: Scenario A**

RUNOFF	0.000	0.000	0.000	0.123	0.693	0.182
	1.431	1.827	0.522	0.000	0.163	0.000
EVAPOTRANSPIRATION	1.242	1.787	0.614	0.863	1.157	0.769
	1.811	2.661	1.607	0.263	0.724	0.591
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 11

	INCHES	CU. FEET	PERCENT
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PRECIPITATION	17.95	65158.516	100.00
RUNOFF	4.940	17931.537	27.52
EVAPOTRANSPIRATION	14.089	51141.980	78.49
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00



**Pescadito Landfill – Closed Conditions: Scenario A**

AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	-1.079	-3915.145	-6.01
SOIL WATER AT START OF YEAR	905.846	3288220.000	
SOIL WATER AT END OF YEAR	904.767	3284305.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.145	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 12

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.42 0.63	0.97 0.92	0.43 5.10	1.23 1.74	0.18 4.50	2.64 0.29
RUNOFF	0.000 0.035	0.013 0.048	0.000 1.829	0.536 0.411	0.000 1.190	0.214 0.000
EVAPOTRANSPIRATION	0.391 0.403	0.899 1.154	0.171 2.351	1.039 2.249	0.180 1.661	2.335 1.013
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON	0.000	0.000	0.000	0.000	0.000	0.000
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**Pescadito Landfill – Closed Conditions: Scenario A**

TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 12

	INCHES	CU. FEET	PERCENT
PRECIPITATION	19.05	69151.516	100.00
RUNOFF	4.276	15523.011	22.45
EVAPOTRANSPIRATION	13.848	50266.750	72.69
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	0.926	3361.694	4.86
SOIL WATER AT START OF YEAR	904.767	3284305.000	
SOIL WATER AT END OF YEAR	905.693	3287666.750	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.064	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 13

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.13	0.38	0.23	2.90	3.47	2.21
	0.34	1.36	1.78	2.05	0.47	1.46

**Pescadito Landfill – Closed Conditions: Scenario A**

RUNOFF	0.000	0.000	0.000	1.675	1.847	0.989
	0.000	0.585	0.308	0.558	0.000	0.289
EVAPOTRANSPIRATION	0.947	0.473	0.246	1.225	1.004	1.354
	0.826	0.775	1.423	1.091	0.921	0.565
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 13

	INCHES	CU. FEET	PERCENT
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PRECIPITATION	16.78	60911.418	100.00
RUNOFF	6.252	22693.486	37.26
EVAPOTRANSPIRATION	10.849	39380.582	64.65
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00

**Pescadito Landfill – Closed Conditions: Scenario A**

AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	-0.320	-1162.513	-1.91
SOIL WATER AT START OF YEAR	905.693	3287666.750	
SOIL WATER AT END OF YEAR	905.373	3286504.250	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.138	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 14

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.46 1.02	0.03 1.49	0.15 3.45	0.09 4.35	1.16 0.45	3.05 0.75
RUNOFF	0.000 0.106	0.000 0.176	0.000 0.788	0.000 1.496	0.241 0.000	1.532 0.095
EVAPOTRANSPIRATION	0.909 0.914	0.187 1.314	0.149 1.989	0.091 2.819	0.919 1.156	1.518 0.516
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
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**Pescadito Landfill – Closed Conditions: Scenario A**

STD. DEVIATION OF DAILY	0.000	0.000	0.000	0.000	0.000	0.000
HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 14

	INCHES	CU. FEET	PERCENT
PRECIPITATION	16.45	59713.508	100.00
RUNOFF	4.435	16098.339	26.96
EVAPOTRANSPIRATION	12.481	45305.445	75.87
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	-0.466	-1690.485	-2.83
SOIL WATER AT START OF YEAR	905.373	3286504.250	
SOIL WATER AT END OF YEAR	904.907	3284813.750	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0001	0.211	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 15

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.20	0.44	0.39	0.00	3.65	3.26
	0.46	1.27	3.68	1.28	0.81	1.65

**Pescadito Landfill – Closed Conditions: Scenario A**

RUNOFF	0.000	0.000	0.000	0.000	2.195	2.060
	0.000	0.343	0.717	0.104	0.053	0.052
EVAPOTRANSPIRATION	0.340	0.433	0.397	0.000	1.454	1.201
	0.460	0.927	2.583	0.982	0.996	0.971
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 15

	INCHES	CU. FEET	PERCENT
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PRECIPITATION	17.09	62036.699	100.00
RUNOFF	5.524	20053.098	32.32
EVAPOTRANSPIRATION	10.744	39001.687	62.87
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		

**Pescadito Landfill – Closed Conditions: Scenario A**

CHANGE IN WATER STORAGE	0.821	2981.944	4.81
SOIL WATER AT START OF YEAR	904.907	3284813.750	
SOIL WATER AT END OF YEAR	905.729	3287795.500	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.028	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 16

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.98 3.69	0.34 3.76	0.05 2.83	2.63 1.49	0.17 1.75	0.64 0.14
RUNOFF	0.013 1.932	0.000 2.642	0.000 0.210	1.456 0.146	0.000 0.703	0.121 0.000
EVAPOTRANSPIRATION	1.076 1.844	1.135 1.118	0.107 2.194	1.174 1.592	0.170 0.686	0.433 0.668
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
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**Pescadito Landfill – Closed Conditions: Scenario A**

STD. DEVIATION OF DAILY	0.000	0.000	0.000	0.000	0.000	0.000
HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 16

	INCHES	CU. FEET	PERCENT
PRECIPITATION	18.47	67046.102	100.00
RUNOFF	7.223	26219.689	39.11
EVAPOTRANSPIRATION	12.197	44274.699	66.04
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	-0.950	-3448.323	-5.14
SOIL WATER AT START OF YEAR	905.729	3287795.500	
SOIL WATER AT END OF YEAR	904.779	3284347.250	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.038	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 17

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.53	0.75	0.42	0.22	3.01	3.82
	2.92	2.98	3.29	2.33	0.31	1.35
RUNOFF	0.000	0.146	0.000	0.000	0.738	1.161



**Pescadito Landfill – Closed Conditions: Scenario A**

	0.999	0.481	0.783	0.306	0.000	0.180
EVAPOTRANSPIRATION	0.533	0.613	0.420	0.220	2.272	2.637
	1.462	2.776	2.500	2.234	0.187	0.497
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 17

	INCHES	CU. FEET	PERCENT
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PRECIPITATION	21.93	79605.914	100.00
RUNOFF	4.794	17402.455	21.86
EVAPOTRANSPIRATION	16.351	59353.051	74.56
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		

**Pescadito Landfill – Closed Conditions: Scenario A**

CHANGE IN WATER STORAGE	0.785	2850.560	3.58
SOIL WATER AT START OF YEAR	904.779	3284347.250	
SOIL WATER AT END OF YEAR	905.564	3287197.750	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.151	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 18

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.00 0.26	0.35 1.06	2.93 6.22	1.97 4.07	0.22 0.41	1.21 1.75
RUNOFF	0.000 0.000	0.000 0.073	0.265 2.947	0.415 1.808	0.000 0.000	0.420 0.068
EVAPOTRANSPIRATION	0.796 0.501	0.350 0.987	2.376 3.209	1.844 2.142	0.220 0.595	0.549 1.009
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
STD. DEVIATION OF DAILY	0.000	0.000	0.000	0.000	0.000	0.000

**Pescadito Landfill – Closed Conditions: Scenario A**

HEAD ON TOP OF LAYER 6            0.000    0.000    0.000    0.000    0.000    0.000

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ANNUAL TOTALS FOR YEAR 18

	INCHES	CU. FEET	PERCENT
PRECIPITATION	20.45	74233.492	100.00
RUNOFF	5.995	21762.812	29.32
EVAPOTRANSPIRATION	14.578	52917.887	71.29
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	-0.123	-447.325	-0.60
SOIL WATER AT START OF YEAR	905.564	3287197.750	
SOIL WATER AT END OF YEAR	905.441	3286750.500	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.121	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 19

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.88 4.12	1.31 0.75	1.22 1.44	1.00 3.92	2.36 1.22	0.53 0.44
RUNOFF	0.000 2.412	0.705 0.000	0.000 0.237	0.411 0.774	1.387 0.146	0.000 0.000

**Pescadito Landfill – Closed Conditions: Scenario A**

EVAPOTRANSPIRATION	1.073	0.743	1.562	0.589	0.973	0.530
	1.604	0.853	1.203	2.730	1.324	0.538
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 19

	INCHES	CU. FEET	PERCENT
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PRECIPITATION	19.19	69659.695	100.00
RUNOFF	6.073	22043.518	31.64
EVAPOTRANSPIRATION	13.723	49813.195	71.51
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	-0.605	-2196.965	-3.15

**Pescadito Landfill – Closed Conditions: Scenario A**

SOIL WATER AT START OF YEAR	905.441	3286750.500	
SOIL WATER AT END OF YEAR	904.836	3284553.500	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.055	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 20

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.69 2.09	0.16 0.97	0.81 5.25	1.98 0.91	0.27 0.00	0.06 0.83
RUNOFF	0.000 0.733	0.000 0.338	0.000 3.061	0.480 0.000	0.000 0.000	0.000 0.120
EVAPOTRANSPIRATION	0.712 1.354	0.205 0.635	0.761 1.833	1.549 1.228	0.270 0.038	0.060 0.684
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000

**Pescadito Landfill – Closed Conditions: Scenario A**

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ANNUAL TOTALS FOR YEAR 20

	INCHES	CU. FEET	PERCENT
PRECIPITATION	14.02	50892.605	100.00
RUNOFF	4.732	17176.068	33.75
EVAPOTRANSPIRATION	9.330	33868.066	66.55
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	-0.042	-151.545	-0.30
SOIL WATER AT START OF YEAR	904.836	3284553.500	
SOIL WATER AT END OF YEAR	904.794	3284402.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.016	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 21

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.83 0.72	0.60 1.05	0.07 2.27	1.08 2.36	2.41 0.62	1.31 2.34
RUNOFF	0.002 0.109	0.000 0.085	0.000 0.097	0.013 0.726	1.118 0.000	0.272 0.565

**Pescadito Landfill – Closed Conditions: Scenario A**

EVAPOTRANSPIRATION	0.488	0.964	0.073	1.067	1.292	1.012
	0.580	1.002	2.194	1.635	0.463	0.936
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 21

	<u>INCHES</u>	<u>CU. FEET</u>	<u>PERCENT</u>
PRECIPITATION	15.66	56845.797	100.00
RUNOFF	2.986	10840.327	19.07
EVAPOTRANSPIRATION	11.703	42483.559	74.73
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	0.970	3521.880	6.20

**Pescadito Landfill – Closed Conditions: Scenario A**

SOIL WATER AT START OF YEAR	904.794	3284402.000	
SOIL WATER AT END OF YEAR	905.764	3287924.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.030	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 22

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	1.77 0.42	0.83 0.87	0.78 4.52	0.97 1.86	0.55 0.58	3.16 1.38
RUNOFF	0.356 0.000	0.108 0.000	0.109 2.058	0.000 0.944	0.082 0.000	1.074 0.485
EVAPOTRANSPIRATION	1.051 0.903	2.081 0.870	0.670 2.145	0.971 1.233	0.468 0.580	1.604 0.364
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000



**Pescadito Landfill – Closed Conditions: Scenario A**

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ANNUAL TOTALS FOR YEAR 22

	INCHES	CU. FEET	PERCENT
PRECIPITATION	17.69	64214.723	100.00
RUNOFF	5.216	18934.424	29.49
EVAPOTRANSPIRATION	12.939	46968.883	73.14
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	-0.465	-1688.491	-2.63
SOIL WATER AT START OF YEAR	905.764	3287924.000	
SOIL WATER AT END OF YEAR	905.299	3286235.500	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.093	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 23

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.09 2.18	0.12 0.67	0.00 1.64	2.07 1.89	2.69 1.07	2.12 1.96
RUNOFF	0.000 0.340	0.000 0.000	0.000 0.121	0.580 0.407	1.334 0.042	0.918 0.128
EVAPOTRANSPIRATION	0.613	0.128	0.000	1.488	1.358	1.200

**Pescadito Landfill – Closed Conditions: Scenario A**

	1.220	1.292	1.068	1.934	0.966	0.848
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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 MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 23  
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	INCHES	CU. FEET	PERCENT
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PRECIPITATION	16.50	59895.016	100.00
RUNOFF	3.870	14046.564	23.45
EVAPOTRANSPIRATION	12.116	43979.414	73.43
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	0.515	1868.839	3.12
SOIL WATER AT START OF YEAR	905.299	3286235.500	

**Pescadito Landfill – Closed Conditions: Scenario A**

SOIL WATER AT END OF YEAR	905.814	3288104.250	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0001	0.196	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 24

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	1.46 0.00	2.05 4.21	1.84 4.56	3.96 2.34	0.00 0.00	0.79 0.97
RUNOFF	0.105 0.000	0.106 1.261	0.000 2.024	1.604 0.387	0.000 0.000	0.227 0.000
EVAPOTRANSPIRATION	1.169 0.000	2.642 2.482	2.374 2.912	2.301 1.515	0.055 0.528	0.563 0.802
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
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**Pescadito Landfill – Closed Conditions: Scenario A**

STD. DEVIATION OF DAILY	0.000	0.000	0.000	0.000	0.000	0.000
HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 24

	INCHES	CU. FEET	PERCENT
PRECIPITATION	22.18	80513.406	100.00
RUNOFF	5.714	20741.791	25.76
EVAPOTRANSPIRATION	17.344	62959.625	78.20
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	-0.878	-3187.993	-3.96
SOIL WATER AT START OF YEAR	905.814	3288104.250	
SOIL WATER AT END OF YEAR	904.936	3284916.250	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.017	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 25

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.74	2.84	1.00	0.48	1.15	1.06
	0.33	3.80	4.09	1.21	0.51	0.12

**Pescadito Landfill – Closed Conditions: Scenario A**

RUNOFF	0.000	0.180	0.000	0.000	0.000	0.126
	0.000	1.258	1.095	0.108	0.000	0.000
EVAPOTRANSPIRATION	0.908	2.067	1.593	0.480	1.147	0.937
	0.330	2.461	2.395	1.330	0.964	0.120
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 25

	<u>INCHES</u>	<u>CU. FEET</u>	<u>PERCENT</u>
PRECIPITATION	17.33	62907.898	100.00
RUNOFF	2.767	10045.407	15.97
EVAPOTRANSPIRATION	14.730	53471.387	85.00
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		

**Pescadito Landfill – Closed Conditions: Scenario A**

CHANGE IN WATER STORAGE	-0.168	-608.840	-0.97
SOIL WATER AT START OF YEAR	904.936	3284916.250	
SOIL WATER AT END OF YEAR	904.768	3284307.500	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.055	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 26

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.41 0.42	0.78 4.51	1.13 3.21	0.00 4.27	5.86 0.60	2.48 0.48
RUNOFF	0.000 0.000	0.000 1.190	0.112 0.532	0.000 0.981	3.506 0.000	0.586 0.000
EVAPOTRANSPIRATION	0.409 0.420	0.781 2.692	0.996 3.289	0.022 2.486	1.992 1.263	2.256 0.535
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
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**Pescadito Landfill – Closed Conditions: Scenario A**

STD. DEVIATION OF DAILY	0.000	0.000	0.000	0.000	0.000	0.000
HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 26

	INCHES	CU. FEET	PERCENT
	-----	-----	-----
PRECIPITATION	24.15	87664.516	100.00
RUNOFF	6.906	25067.752	28.60
EVAPOTRANSPIRATION	17.141	62222.379	70.98
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	0.103	374.432	0.43
SOIL WATER AT START OF YEAR	904.768	3284307.500	
SOIL WATER AT END OF YEAR	904.871	3284681.750	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.052	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 27

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
	-----	-----	-----	-----	-----	-----
PRECIPITATION	0.61	0.15	1.18	0.55	4.62	5.08
	0.74	2.32	1.13	1.30	0.92	0.88
RUNOFF	0.000	0.000	0.000	0.000	1.814	3.157

**Pescadito Landfill – Closed Conditions: Scenario A**

	0.040	0.503	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	0.697	0.166	1.180	0.541	2.805	1.933
	0.694	1.823	1.130	1.300	0.551	1.033
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 27

	<u>INCHES</u>	<u>CU. FEET</u>	<u>PERCENT</u>
PRECIPITATION	19.48	70712.398	100.00
RUNOFF	5.514	20015.164	28.31
EVAPOTRANSPIRATION	13.854	50288.336	71.12
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		



**Pescadito Landfill – Closed Conditions: Scenario A**

CHANGE IN WATER STORAGE	0.113	408.774	0.58
SOIL WATER AT START OF YEAR	904.871	3284681.750	
SOIL WATER AT END OF YEAR	904.984	3285090.500	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.126	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 28

	<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
PRECIPITATION	0.61 3.11	0.08 4.58	1.35 0.68	0.25 5.11	3.33 0.10	1.24 0.89
RUNOFF	0.000 1.805	0.000 2.308	0.345 0.000	0.000 1.701	2.025 0.000	0.347 0.000
EVAPOTRANSPIRATION	0.809 1.238	0.097 2.300	0.992 0.718	0.263 2.773	1.305 0.735	0.893 0.399
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
STD. DEVIATION OF DAILY	0.000	0.000	0.000	0.000	0.000	0.000

**Pescadito Landfill – Closed Conditions: Scenario A**

HEAD ON TOP OF LAYER 6                    0.000    0.000    0.000    0.000    0.000    0.000

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ANNUAL TOTALS FOR YEAR    28

	INCHES	CU. FEET	PERCENT
PRECIPITATION	21.33	77427.898	100.00
RUNOFF	8.532	30971.973	40.00
EVAPOTRANSPIRATION	12.522	45456.320	58.71
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	0.275	999.668	1.29
SOIL WATER AT START OF YEAR	904.984	3285090.500	
SOIL WATER AT END OF YEAR	905.259	3286090.250	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.059	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR    29

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	1.03 0.48	2.62 4.29	0.33 6.12	0.01 4.97	4.10 1.23	0.36 0.79
RUNOFF	0.008 0.000	0.665 1.202	0.000 2.544	0.000 2.981	2.303 0.309	0.000 0.130

**Pescadito Landfill – Closed Conditions: Scenario A**

EVAPOTRANSPIRATION	1.096	1.933	0.763	0.017	1.797	0.360
	0.480	3.088	3.307	1.694	1.217	0.464
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
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AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 29

	INCHES	CU. FEET	PERCENT
	-----	-----	-----
PRECIPITATION	26.33	95577.930	100.00
RUNOFF	10.143	36817.441	38.52
EVAPOTRANSPIRATION	16.214	58856.520	61.58
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	-0.026	-96.156	-0.10

**Pescadito Landfill – Closed Conditions: Scenario A**

SOIL WATER AT START OF YEAR	905.259	3286090.250	
SOIL WATER AT END OF YEAR	905.233	3285994.250	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.125	0.00

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MONTHLY TOTALS (IN INCHES) FOR YEAR 30

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION	0.50 3.04	1.84 6.28	1.70 2.40	0.71 2.63	0.70 1.61	0.72 1.72
RUNOFF	0.000 1.027	0.000 3.113	0.139 1.090	0.037 0.693	0.000 0.025	0.000 0.185
EVAPOTRANSPIRATION	0.957 1.469	1.413 3.711	1.477 1.305	1.190 1.668	0.626 1.228	0.794 1.173
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)

AVERAGE DAILY HEAD ON TOP OF LAYER 6	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 6	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000

**Pescadito Landfill – Closed Conditions: Scenario A**

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ANNUAL TOTALS FOR YEAR 30

	INCHES	CU. FEET	PERCENT
PRECIPITATION	23.85	86575.508	100.00
RUNOFF	6.311	22907.777	26.46
EVAPOTRANSPIRATION	17.012	61752.781	71.33
RECIRCULATION INTO LAYER 3	0.000000	0.000	0.00
DRAINAGE COLLECTED FROM LAYER 5	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 5	0.000000	0.000	0.00
PERC./LEAKAGE THROUGH LAYER 7	0.000000	0.000	0.00
AVG. HEAD ON TOP OF LAYER 6	0.0000		
CHANGE IN WATER STORAGE	0.528	1914.922	2.21
SOIL WATER AT START OF YEAR	905.233	3285994.250	
SOIL WATER AT END OF YEAR	905.760	3287909.000	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.028	0.00

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AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 1 THROUGH 30

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
PRECIPITATION						
TOTALS	0.66 1.65	0.98 2.31	0.79 3.57	1.08 2.49	1.97 0.96	2.35 0.97

**Pescadito Landfill – Closed Conditions: Scenario A**

STD. DEVIATIONS	0.44	0.81	0.69	1.17	1.76	1.81
	1.61	1.57	1.65	1.44	0.97	0.57
RUNOFF						
-----						
TOTALS	0.018	0.102	0.055	0.371	0.894	0.964
	0.651	0.700	1.135	0.741	0.136	0.080
STD. DEVIATIONS	0.067	0.193	0.113	0.575	1.059	1.079
	1.073	0.923	0.941	0.735	0.291	0.142
EVAPOTRANSPIRATION						
-----						
TOTALS	0.798	1.089	0.906	0.764	1.033	1.342
	1.015	1.619	2.267	1.688	0.848	0.733
STD. DEVIATIONS	0.329	0.730	0.755	0.657	0.767	0.892
	0.603	0.836	0.906	0.743	0.418	0.307
LATERAL DRAINAGE RECIRCULATED INTO LAYER 3						
-----						
TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 5						
-----						
TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 5						
-----						
TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 7						
-----						
TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**Pescadito Landfill – Closed Conditions: Scenario A**

AVERAGES OF MONTHLY AVERAGED DAILY HEADS (INCHES)

-----						
DAILY AVERAGE HEAD ON TOP OF LAYER 6						
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AVERAGES	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 1 THROUGH 30

-----				
	INCHES		CU. FEET	PERCENT
	-----		-----	-----
PRECIPITATION	19.78	( 3.525)	71796.6	100.00
RUNOFF	5.848	( 1.9349)	21228.51	29.568
EVAPOTRANSPIRATION	14.104	( 2.5333)	51196.53	71.308
DRAINAGE RECIRCULATED INTO LAYER 3	0.00000	( 0.00000)	0.000	0.00000
LATERAL DRAINAGE COLLECTED FROM LAYER 5	0.00000	( 0.00000)	0.000	0.00000
DRAINAGE RECIRCULATED FROM LAYER 5	0.00000	( 0.00000)	0.000	0.00000
PERCOLATION/LEAKAGE THROUGH LAYER 7	0.00000	( 0.00000)	0.000	0.00000
AVERAGE HEAD ON TOP OF LAYER 6	0.000	( 0.000)		
CHANGE IN WATER STORAGE	-0.173	( 1.2492)	-628.49	-0.875

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PEAK DAILY VALUES FOR YEARS 1 THROUGH 30

-----		
	(INCHES)	(CU. FT.)
	-----	-----
PRECIPITATION	4.24	15391.199
RUNOFF	3.577	12983.0488

**Pescadito Landfill – Closed Conditions: Scenario A**

DRAINAGE RECIRCULATED INTO LAYER	3	0.00000	0.00000
DRAINAGE COLLECTED FROM LAYER	5	0.00000	0.00000
DRAINAGE RECIRCULATED FROM LAYER	5	0.00000	0.00000
PERCOLATION/LEAKAGE THROUGH LAYER	7	0.000000	0.00000
AVERAGE HEAD ON TOP OF LAYER	6	0.000	
MAXIMUM HEAD ON TOP OF LAYER	6	0.000	
LOCATION OF MAXIMUM HEAD IN LAYER	5		
(DISTANCE FROM DRAIN)		0.0 FEET	
SNOW WATER		0.00	0.0000
MAXIMUM VEG. SOIL WATER (VOL/VOL)			0.3270
MINIMUM VEG. SOIL WATER (VOL/VOL)			0.2213

\*\*\* Maximum heads are computed using McEnroe's equations. \*\*\*

Reference: Maximum Saturated Depth over Landfill Liner  
 by Bruce M. McEnroe, University of Kansas  
 ASCE Journal of Environmental Engineering  
 Vol. 119, No. 2, March 1993, pp. 262-270.

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FINAL WATER STORAGE AT END OF YEAR 30

LAYER	(INCHES)	(VOL/VOL)
1	2.7658	0.3951
2	9.2417	0.3081
3	873.0695	0.1915
4	9.8568	0.4107
5	0.0024	0.0100
6	0.0000	0.0000
7	10.8240	0.4510
SNOW WATER	0.000	

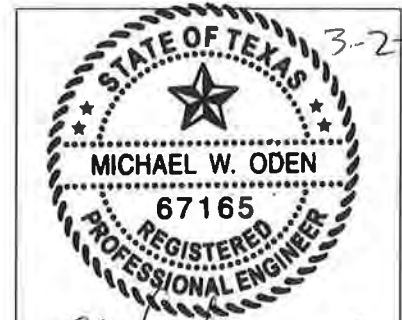
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**ATTACHMENT B**  
**TO APPENDIX III-D.6**  
**HELP MODEL OUTPUTS**

- 5. ANALYSES WITH INTRODUCED CONTAMINATED WATER**
- A. OPEN CONDITIONS – 20 FEET OF WASTE**
  - B. INTERMEDIATE CONDITIONS – 50 FEET OF WASTE**
  - C. INTERMEDIATE CONDITIONS – 100 FEET OF WASTE**



*Michael W. Oden*

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**Pescadito Landfill – Open Conditions: Scenario A**  
**w/Leachate Introduced**

LAYER 2  
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TYPE 1 - VERTICAL PERCOLATION LAYER  
MATERIAL TEXTURE NUMBER 18

THICKNESS	=	240.00	INCHES
POROSITY	=	0.6710	VOL/VOL
FIELD CAPACITY	=	0.2920	VOL/VOL
WILTING POINT	=	0.0770	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.2000	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.100000005000E-02	CM/SEC
SUBSURFACE INFLOW	=	10.00	INCHES/YR

NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM LAYER # 4  
IS RECIRCULATED INTO THIS LAYER.

LAYER 3  
-----

TYPE 1 - VERTICAL PERCOLATION LAYER  
MATERIAL TEXTURE NUMBER 0

THICKNESS	=	24.00	INCHES
POROSITY	=	0.4510	VOL/VOL
FIELD CAPACITY	=	0.4110	VOL/VOL
WILTING POINT	=	0.3110	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.4110	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.999999975000E-05	CM/SEC

LAYER 4  
-----

TYPE 2 - LATERAL DRAINAGE LAYER  
MATERIAL TEXTURE NUMBER 0

THICKNESS	=	0.26	INCHES
POROSITY	=	0.8500	VOL/VOL
FIELD CAPACITY	=	0.0100	VOL/VOL
WILTING POINT	=	0.0050	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.0100	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	3.71399999000	CM/SEC
SLOPE	=	2.50	PERCENT
DRAINAGE LENGTH	=	461.0	FEET

NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM THIS  
LAYER IS RECIRCULATED INTO LAYER # 2.

LAYER 5  
-----

TYPE 4 - FLEXIBLE MEMBRANE LINER  
MATERIAL TEXTURE NUMBER 35

THICKNESS	=	0.06	INCHES
POROSITY	=	0.0000	VOL/VOL

**Pescadito Landfill – Open Conditions: Scenario A**  
**w/Leachate Introduced**

FIELD CAPACITY	=	0.0000	VOL/VOL
WILTING POINT	=	0.0000	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.0000	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.199999996000E-12	CM/SEC
FML PINHOLE DENSITY	=	3.00	HOLES/ACRE
FML INSTALLATION DEFECTS	=	3.00	HOLES/ACRE
FML PLACEMENT QUALITY	=	3	- GOOD

LAYER 6  
-----

TYPE 3 - BARRIER SOIL LINER  
MATERIAL TEXTURE NUMBER 0

THICKNESS	=	24.00	INCHES
POROSITY	=	0.4510	VOL/VOL
FIELD CAPACITY	=	0.4110	VOL/VOL
WILTING POINT	=	0.3110	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.4510	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.100000001000E-06	CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA  
-----

NOTE: SCS RUNOFF CURVE NUMBER WAS USER-SPECIFIED.

SCS RUNOFF CURVE NUMBER	=	85.00	
FRACTION OF AREA ALLOWING RUNOFF	=	0.0	PERCENT
AREA PROJECTED ON HORIZONTAL PLANE	=	1.000	ACRES
EVAPORATIVE ZONE DEPTH	=	60.0	INCHES
INITIAL WATER IN EVAPORATIVE ZONE	=	13.266	INCHES
UPPER LIMIT OF EVAPORATIVE STORAGE	=	38.946	INCHES
LOWER LIMIT OF EVAPORATIVE STORAGE	=	6.024	INCHES
INITIAL SNOW WATER	=	0.000	INCHES
INITIAL WATER IN LAYER MATERIALS	=	71.157	INCHES
TOTAL INITIAL WATER	=	71.157	INCHES
TOTAL SUBSURFACE INFLOW	=	10.00	INCHES/YEAR

EVAPOTRANSPIRATION AND WEATHER DATA  
-----

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM  
BROWNSVILLE TEXAS

STATION LATITUDE	=	27.34	DEGREES
MAXIMUM LEAF AREA INDEX	=	0.00	
START OF GROWING SEASON (JULIAN DATE)	=	0	
END OF GROWING SEASON (JULIAN DATE)	=	367	
EVAPORATIVE ZONE DEPTH	=	60.0	INCHES
AVERAGE ANNUAL WIND SPEED	=	11.60	MPH
AVERAGE 1ST QUARTER RELATIVE HUMIDITY	=	76.00	%

**Pescadito Landfill – Open Conditions: Scenario A**  
**w/Leachate Introduced**

AVERAGE 2ND QUARTER RELATIVE HUMIDITY = 75.00 %  
 AVERAGE 3RD QUARTER RELATIVE HUMIDITY = 74.00 %  
 AVERAGE 4TH QUARTER RELATIVE HUMIDITY = 76.00 %

NOTE: PRECIPITATION DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY PRECIPITATION (INCHES)

<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
0.82	0.86	0.88	1.37	2.65	2.68
1.93	2.29	3.09	2.41	1.07	0.91

NOTE: TEMPERATURE DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY TEMPERATURE (DEGREES FAHRENHEIT)

<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
56.50	61.00	68.80	76.00	82.00	86.50
87.90	87.90	82.90	75.40	65.50	57.70

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS  
 AND STATION LATITUDE = 27.34 DEGREES

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MONTHLY TOTALS (IN INCHES) FOR YEAR 1

	<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
PRECIPITATION	0.32	0.49	0.35	0.01	0.00	3.60
	0.00	2.82	3.54	2.89	0.72	1.56
RUNOFF	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
EVAPOTRANSPIRATION	0.621	0.377	0.337	0.279	0.256	3.491
	0.706	1.974	4.411	2.946	1.381	1.257
SUBSURFACE INFLOW INTO	0.8493	0.7671	0.8493	0.8219	0.8493	0.8219

**Pescadito Landfill – Open Conditions: Scenario A**  
**w/Leachate Introduced**

LAYER 2	0.8493	0.8493	0.8219	0.8493	0.8219	0.8493
LATERAL DRAINAGE RECIRCULATED INTO LAYER 2	0.0064	0.0003	0.0001	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 4	0.0064	0.0003	0.0001	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
-----

AVERAGE DAILY HEAD ON TOP OF LAYER 5	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 5	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 1

	INCHES	CU. FEET	PERCENT
PRECIPITATION	16.30	59169.004	100.00
RUNOFF	0.000	0.000	0.00
EVAPOTRANSPIRATION	18.037	65476.051	110.66
SUBSURFACE INFLOW INTO LAYER 2	10.000000	36300.000	61.35
RECIRCULATION INTO LAYER 2	0.006864	24.915	0.04
DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 4	0.006864	24.915	0.04
PERC./LEAKAGE THROUGH LAYER 6	0.000001	0.003	0.00
AVG. HEAD ON TOP OF LAYER 5	0.0000		
CHANGE IN WATER STORAGE	8.263	29992.893	50.69

**Pescadito Landfill – Open Conditions: Scenario A**  
**w/Leachate Introduced**

SOIL WATER AT START OF YEAR	71.157	258298.484	
SOIL WATER AT END OF YEAR	79.419	288291.375	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.059	0.00

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AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 1 THROUGH 1

	<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
<u>PRECIPITATION</u>						
TOTALS	0.32 0.00	0.49 2.82	0.35 3.54	0.01 2.89	0.00 0.72	3.60 1.56
STD. DEVIATIONS	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
<u>RUNOFF</u>						
TOTALS	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
STD. DEVIATIONS	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
<u>EVAPOTRANSPIRATION</u>						
TOTALS	0.621 0.706	0.377 1.974	0.337 4.411	0.279 2.946	0.256 1.381	3.491 1.257
STD. DEVIATIONS	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
<u>SUBSURFACE INFLOW INTO LAYER 2</u>						
TOTALS	0.8493 0.8493	0.7671 0.8493	0.8493 0.8219	0.8219 0.8493	0.8493 0.8219	0.8219 0.8493
<u>LATERAL DRAINAGE RECIRCULATED INTO LAYER 2</u>						
TOTALS	0.0064	0.0003	0.0001	0.0000	0.0000	0.0000



**Pescadito Landfill – Open Conditions: Scenario A**  
**w/Leachate Introduced**

	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<u>LATERAL DRAINAGE COLLECTED FROM LAYER 4</u>						
TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<u>LATERAL DRAINAGE RECIRCULATED FROM LAYER 4</u>						
TOTALS	0.0064	0.0003	0.0001	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<u>PERCOLATION/LEAKAGE THROUGH LAYER 6</u>						
TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

-----  
AVERAGES OF MONTHLY AVERAGED DAILY HEADS (INCHES)  
-----

<u>DAILY AVERAGE HEAD ON TOP OF LAYER 5</u>						
AVERAGES	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 1 THROUGH 1

	INCHES		CU. FEET	PERCENT
PRECIPITATION	16.30	( 0.000)	59169.0	100.00

**Pescadito Landfill – Open Conditions: Scenario A**  
**w/Leachate Introduced**

RUNOFF	0.000	( 0.0000)	0.00	0.000
EVAPOTRANSPIRATION	18.037	( 0.0000)	65476.05	110.659
SUBSURFACE INFLOW INTO LAYER 2	10.00000		36300.000	61.34969
DRAINAGE RECIRCULATED INTO LAYER 2	0.00686	( 0.00000)	24.915	0.04211
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.00000	( 0.00000)	0.000	0.00000
DRAINAGE RECIRCULATED FROM LAYER 4	0.00686	( 0.00000)	<u>24.915</u>	0.04211
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.00000	( 0.00000)	0.003	0.00000
AVERAGE HEAD ON TOP OF LAYER 5	0.000	( 0.000)		
CHANGE IN WATER STORAGE	8.263	( 0.0000)	29992.89	50.690

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PEAK DAILY VALUES FOR YEARS	1 THROUGH	1
	----- (INCHES)	----- (CU. FT.)
PRECIPITATION	1.32	4791.600
RUNOFF	0.000	0.0000
DRAINAGE RECIRCULATED INTO LAYER 2	0.00244	8.87097
DRAINAGE COLLECTED FROM LAYER 4	0.00000	0.00000
DRAINAGE RECIRCULATED FROM LAYER 4	0.00244	<u>8.87097</u>
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.000000	0.00006
AVERAGE HEAD ON TOP OF LAYER 5	0.002	
MAXIMUM HEAD ON TOP OF LAYER 5	<u>0.004</u>	
LOCATION OF MAXIMUM HEAD IN LAYER 4 (DISTANCE FROM DRAIN)	0.0 FEET	
SNOW WATER	0.00	0.0000

**Pescadito Landfill – Open Conditions: Scenario A**  
**w/Leachate Introduced**

MAXIMUM VEG. SOIL WATER (VOL/VOL) 0.2582  
 MINIMUM VEG. SOIL WATER (VOL/VOL) 0.2119

\*\*\* Maximum heads are computed using McEnroe's equations. \*\*\*

Reference: Maximum Saturated Depth over Landfill Liner  
 by Bruce M. McEnroe, University of Kansas  
 ASCE Journal of Environmental Engineering  
 Vol. 119, No. 2, March 1993, pp. 262-270.

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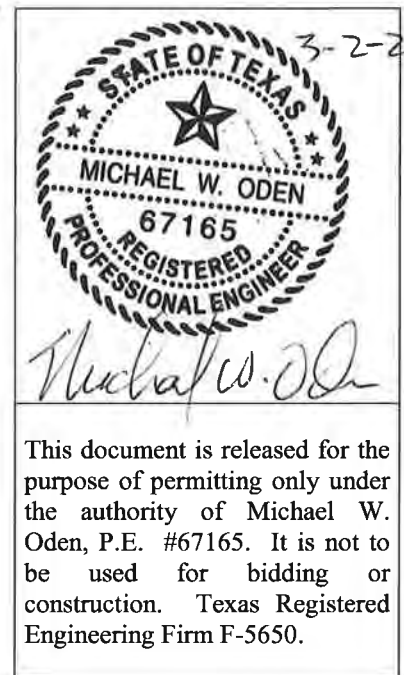
FINAL WATER STORAGE AT END OF YEAR 1

LAYER	(INCHES)	(VOL/VOL)
1	1.5898	0.2650
2	57.1455	0.2381
3	9.8571	0.4107
4	0.0027	0.0100
5	0.0000	0.0000
6	10.8240	0.4510
SNOW WATER	0.000	

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**ATTACHMENT B**  
**TO APPENDIX III-D.6**  
**HELP MODEL OUTPUTS**

- 5. SENSITIVITY ANALYSES WITH INTRODUCED LEACHATE**
- A. OPEN CONDITIONS
  - B. INTERMEDIATE CONDITIONS – 50 FEET OF WASTE**
  - C. INTERMEDIATE CONDITIONS – 100 FEET OF WASTE





**Pescadito Landfill – Intermediate Conditions (50 ft of Waste): Scenario A**  
**w/Leachate Introduced**

FIELD CAPACITY = 0.2920 VOL/VOL  
WILTING POINT = 0.0770 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.2381 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.100000005000E-02 CM/SEC  
SUBSURFACE INFLOW = 10.00 INCHES/YR  
NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM LAYER # 4  
IS RECIRCULATED INTO THIS LAYER.

LAYER 3  
-----

TYPE 1 - VERTICAL PERCOLATION LAYER  
MATERIAL TEXTURE NUMBER 0

THICKNESS = 24.00 INCHES  
POROSITY = 0.4510 VOL/VOL  
FIELD CAPACITY = 0.4110 VOL/VOL  
WILTING POINT = 0.3110 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.4109 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.999999975000E-05 CM/SEC

LAYER 4  
-----

TYPE 2 - LATERAL DRAINAGE LAYER  
MATERIAL TEXTURE NUMBER 0

THICKNESS = 0.25 INCHES  
POROSITY = 0.8500 VOL/VOL  
FIELD CAPACITY = 0.0100 VOL/VOL  
WILTING POINT = 0.0050 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.0100 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 3.85999990000 CM/SEC  
SLOPE = 2.50 PERCENT  
DRAINAGE LENGTH = 461.0 FEET  
NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM THIS  
LAYER IS RECIRCULATED INTO LAYER # 2.

LAYER 5  
-----

TYPE 4 - FLEXIBLE MEMBRANE LINER  
MATERIAL TEXTURE NUMBER 35

THICKNESS = 0.06 INCHES  
POROSITY = 0.0000 VOL/VOL  
FIELD CAPACITY = 0.0000 VOL/VOL  
WILTING POINT = 0.0000 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.0000 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.199999996000E-12 CM/SEC  
FML PINHOLE DENSITY = 3.00 HOLES/ACRE  
FML INSTALLATION DEFECTS = 3.00 HOLES/ACRE  
FML PLACEMENT QUALITY = 3 - GOOD

LAYER 6

**Pescadito Landfill – Intermediate Conditions (50 ft of Waste): Scenario A**  
**w/Leachate Introduced**

-----

TYPE 3 - BARRIER SOIL LINER  
MATERIAL TEXTURE NUMBER 0

THICKNESS	=	24.00	INCHES
POROSITY	=	0.4510	VOL/VOL
FIELD CAPACITY	=	0.4110	VOL/VOL
WILTING POINT	=	0.3110	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.4510	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.100000001000E-06	CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA

-----

NOTE: SCS RUNOFF CURVE NUMBER WAS USER-SPECIFIED.

SCS RUNOFF CURVE NUMBER	=	85.00	
FRACTION OF AREA ALLOWING RUNOFF	=	75.0	PERCENT
AREA PROJECTED ON HORIZONTAL PLANE	=	1.000	ACRES
EVAPORATIVE ZONE DEPTH	=	60.0	INCHES
INITIAL WATER IN EVAPORATIVE ZONE	=	16.361	INCHES
UPPER LIMIT OF EVAPORATIVE STORAGE	=	37.620	INCHES
LOWER LIMIT OF EVAPORATIVE STORAGE	=	7.428	INCHES
INITIAL SNOW WATER	=	0.000	INCHES
INITIAL WATER IN LAYER MATERIALS	=	168.480	INCHES
TOTAL INITIAL WATER	=	168.480	INCHES
TOTAL SUBSURFACE INFLOW	=	10.00	INCHES/YEAR

EVAPOTRANSPIRATION AND WEATHER DATA

-----

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM  
BROWNSVILLE TEXAS

STATION LATITUDE	=	27.34	DEGREES
MAXIMUM LEAF AREA INDEX	=	1.00	
START OF GROWING SEASON (JULIAN DATE)	=	0	
END OF GROWING SEASON (JULIAN DATE)	=	367	
EVAPORATIVE ZONE DEPTH	=	60.0	INCHES
AVERAGE ANNUAL WIND SPEED	=	11.60	MPH
AVERAGE 1ST QUARTER RELATIVE HUMIDITY	=	76.00	%
AVERAGE 2ND QUARTER RELATIVE HUMIDITY	=	75.00	%
AVERAGE 3RD QUARTER RELATIVE HUMIDITY	=	74.00	%
AVERAGE 4TH QUARTER RELATIVE HUMIDITY	=	76.00	%

NOTE: PRECIPITATION DATA WAS SYNTHETICALLY GENERATED USING  
COEFFICIENTS FOR BROWNSVILLE TEXAS

**Pescadito Landfill – Intermediate Conditions (50 ft of Waste): Scenario A**  
**w/Leachate Introduced**

NORMAL MEAN MONTHLY PRECIPITATION (INCHES)

<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
0.82	0.86	0.88	1.37	2.65	2.68
1.93	2.29	3.09	2.41	1.07	0.91

NOTE: TEMPERATURE DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY TEMPERATURE (DEGREES FAHRENHEIT)

<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
56.50	61.00	68.80	76.00	82.00	86.50
87.90	87.90	82.90	75.40	65.50	57.70

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS  
 AND STATION LATITUDE = 27.34 DEGREES

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MONTHLY TOTALS (IN INCHES) FOR YEAR 1

	<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
PRECIPITATION	0.32	0.49	0.35	0.01	0.00	3.60
	0.00	2.82	3.54	2.89	0.72	1.56
RUNOFF	0.000	0.000	0.000	0.000	0.000	1.476
	0.000	0.250	0.585	0.456	0.000	0.000
EVAPOTRANSPIRATION	1.249	0.464	0.433	0.444	0.616	3.062
	0.937	1.843	3.570	2.550	0.746	1.583
SUBSURFACE INFLOW INTO LAYER 2	0.8493	0.7671	0.8493	0.8219	0.8493	0.8219
	0.8493	0.8493	0.8219	0.8493	0.8219	0.8493
LATERAL DRAINAGE RECIRCULATED INTO LAYER 2	0.0043	0.0002	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 4	0.0043	0.0002	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000



**Pescadito Landfill – Intermediate Conditions (50 ft of Waste): Scenario A**  
**w/Leachate Introduced**

-----  
 MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
 -----

AVERAGE DAILY HEAD ON	0.000	0.000	0.000	0.000	0.000	0.000
TOP OF LAYER 5	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY	0.000	0.000	0.000	0.000	0.000	0.000
HEAD ON TOP OF LAYER 5	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 1

	INCHES	CU. FEET	PERCENT
	-----	-----	-----
PRECIPITATION	16.30	59169.004	100.00
RUNOFF	2.767	10045.228	16.98
EVAPOTRANSPIRATION	17.497	63514.484	107.34
SUBSURFACE INFLOW INTO LAYER 2	10.000000	36300.000	61.35
RECIRCULATION INTO LAYER 2	0.004464	16.203	0.03
DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 4	0.004464	16.203	0.03
PERC./LEAKAGE THROUGH LAYER 6	0.000001	0.002	0.00
AVG. HEAD ON TOP OF LAYER 5	0.0000		
CHANGE IN WATER STORAGE	6.036	21909.334	37.03
SOIL WATER AT START OF YEAR	168.480	611582.750	
SOIL WATER AT END OF YEAR	174.516	633492.125	
SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	-0.043	0.00

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**Pescadito Landfill – Intermediate Conditions (50 ft of Waste): Scenario A**  
**w/Leachate Introduced**

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AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 1 THROUGH 1

	<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
<u>PRECIPITATION</u>						
TOTALS	0.32 0.00	0.49 2.82	0.35 3.54	0.01 2.89	0.00 0.72	3.60 1.56
STD. DEVIATIONS	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
<u>RUNOFF</u>						
TOTALS	0.000 0.000	0.000 0.250	0.000 0.585	0.000 0.456	0.000 0.000	1.476 0.000
STD. DEVIATIONS	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
<u>EVAPOTRANSPIRATION</u>						
TOTALS	1.249 0.937	0.464 1.843	0.433 3.570	0.444 2.550	0.616 0.746	3.062 1.583
STD. DEVIATIONS	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
<u>SUBSURFACE INFLOW INTO LAYER 2</u>						
TOTALS	0.8493 0.8493	0.7671 0.8493	0.8493 0.8219	0.8219 0.8493	0.8493 0.8219	0.8219 0.8493
<u>LATERAL DRAINAGE RECIRCULATED INTO LAYER 2</u>						
TOTALS	0.0043 0.0000	0.0002 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
STD. DEVIATIONS	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
<u>LATERAL DRAINAGE COLLECTED FROM LAYER 4</u>						
TOTALS	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
STD. DEVIATIONS	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

**Pescadito Landfill – Intermediate Conditions (50 ft of Waste): Scenario A**  
**w/Leachate Introduced**

LATERAL DRAINAGE RECIRCULATED FROM LAYER 4

TOTALS	0.0043	0.0002	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

PERCOLATION/LEAKAGE THROUGH LAYER 6

TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

AVERAGES OF MONTHLY AVERAGED DAILY HEADS (INCHES)

DAILY AVERAGE HEAD ON TOP OF LAYER 5

AVERAGES	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 1 THROUGH 1

	INCHES		CU. FEET	PERCENT
PRECIPITATION	16.30	( 0.000)	59169.0	100.00
RUNOFF	2.767	( 0.0000)	10045.23	16.977
EVAPOTRANSPIRATION	17.497	( 0.0000)	63514.48	107.344
SUBSURFACE INFLOW INTO LAYER 2	10.00000		36300.000	61.34969
DRAINAGE RECIRCULATED INTO LAYER 2	0.00446	( 0.00000)	16.203	0.02738
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.00000	( 0.00000)	0.000	0.00000

**Pescadito Landfill – Intermediate Conditions (50 ft of Waste): Scenario A**  
**w/Leachate Introduced**

DRAINAGE RECIRCULATED FROM LAYER 4	0.00446 ( 0.00000)	16.203	0.02738
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.00000 ( 0.00000)	0.002	0.00000
AVERAGE HEAD ON TOP OF LAYER 5	0.000 ( 0.000)		
CHANGE IN WATER STORAGE	6.036 ( 0.0000)	21909.33	37.028

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PEAK DAILY VALUES FOR YEARS	1 THROUGH	1
	(INCHES)	(CU. FT.)
PRECIPITATION	1.32	4791.600
RUNOFF	0.703	2553.2390
DRAINAGE RECIRCULATED INTO LAYER 2	0.00163	5.90765
DRAINAGE COLLECTED FROM LAYER 4	0.00000	0.00000
DRAINAGE RECIRCULATED FROM LAYER 4	0.00163	5.90765
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.000000	0.00004
AVERAGE HEAD ON TOP OF LAYER 5	0.001	
MAXIMUM HEAD ON TOP OF LAYER 5	0.009	
LOCATION OF MAXIMUM HEAD IN LAYER 4 (DISTANCE FROM DRAIN)	0.0 FEET	
SNOW WATER	0.00	0.0000
MAXIMUM VEG. SOIL WATER (VOL/VOL)		0.2727
MINIMUM VEG. SOIL WATER (VOL/VOL)		0.2025

\*\*\* Maximum heads are computed using McEnroe's equations. \*\*\*

Reference: Maximum Saturated Depth over Landfill Liner  
 by Bruce M. McEnroe, University of Kansas  
 ASCE Journal of Environmental Engineering  
 Vol. 119, No. 2, March 1993, pp. 262-270.

**Pescadito Landfill – Intermediate Conditions (50 ft of Waste): Scenario A**  
**w/Leachate Introduced**

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FINAL WATER STORAGE AT END OF YEAR      1

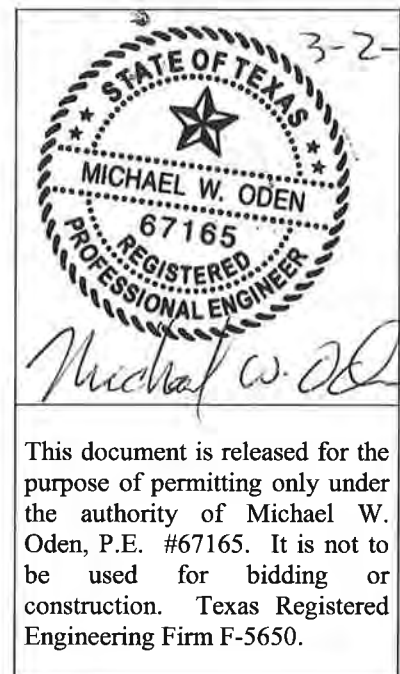
LAYER	(INCHES)	(VOL/VOL)
1	3.3673	0.2806
2	150.4648	0.2508
3	9.8571	0.4107
4	0.0026	0.0100
5	0.0000	0.0000
6	10.8240	0.4510
SNOW WATER	0.000	

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**ATTACHMENT B**  
**TO APPENDIX III-D.6**  
**HELP MODEL OUTPUTS**

- 5. SENSITIVITY ANALYSES WITH INTRODUCED LEACHATE**
- A. OPEN CONDITIONS**
  - B. INTERMEDIATE CONDITIONS – 50 FEET OF WASTE**
  - C. INTERMEDIATE CONDITIONS – 100 FEET OF WASTE**



**Pescadito Landfill – Intermediate Conditions (100 ft of Waste): Scenario A**  
**w/Leachate Introduced**

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**
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**
**          HYDROLOGIC EVALUATION OF LANDFILL PERFORMANCE          **
**          HELP MODEL VERSION 3.07  (1 NOVEMBER 1997)             **
**          DEVELOPED BY ENVIRONMENTAL LABORATORY                  **
**          USAE WATERWAYS EXPERIMENT STATION                      **
**          FOR USEPA RISK REDUCTION ENGINEERING LABORATORY        **
**
**
*****
*****
```

PRECIPITATION DATA FILE: C:\HELP3\pesc\PRECIP.D4  
TEMPERATURE DATA FILE: C:\HELP3\pesc\TEMP.D7  
SOLAR RADIATION DATA FILE: C:\HELP3\pesc\SOL.D13  
EVAPOTRANSPIRATION DATA: C:\HELP3\pesc\EVAP\_INT.D11  
SOIL AND DESIGN DATA FILE: C:\HELP3\pesc\INT10010.D10  
OUTPUT DATA FILE: C:\HELP3\pesc\INT10010.OUT

TIME: 20:40 DATE: 3/ 1/2015

```
*****
```

TITLE: Pescadito Intermediate Conditions

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*****
```

NOTE: INITIAL MOISTURE CONTENT OF THE LAYERS AND SNOW WATER  
WERE SPECIFIED BY THE USER.

LAYER 1  
-----

TYPE 1 - VERTICAL PERCOLATION LAYER  
MATERIAL TEXTURE NUMBER 0

THICKNESS	=	12.00	INCHES
POROSITY	=	0.4510	VOL/VOL
FIELD CAPACITY	=	0.4110	VOL/VOL
WILTING POINT	=	0.3110	VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.4110	VOL/VOL
EFFECTIVE SAT. HYD. COND.	=	0.999999975000E-05	CM/SEC

LAYER 2  
-----

TYPE 1 - VERTICAL PERCOLATION LAYER  
MATERIAL TEXTURE NUMBER 18

THICKNESS	=	1200.00	INCHES
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**Pescadito Landfill – Intermediate Conditions (100 ft of Waste): Scenario A**  
**w/Leachate Introduced**

POROSITY = 0.6710 VOL/VOL  
FIELD CAPACITY = 0.2920 VOL/VOL  
WILTING POINT = 0.0770 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.2508 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.100000005000E-02 CM/SEC  
SUBSURFACE INFLOW = 10.00 INCHES/YR  
NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM LAYER # 4  
IS RECIRCULATED INTO THIS LAYER.

LAYER 3  
-----

TYPE 1 - VERTICAL PERCOLATION LAYER  
MATERIAL TEXTURE NUMBER 0

THICKNESS = 24.00 INCHES  
POROSITY = 0.4510 VOL/VOL  
FIELD CAPACITY = 0.4110 VOL/VOL  
WILTING POINT = 0.3110 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.4109 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.999999975000E-05 CM/SEC

LAYER 4  
-----

TYPE 2 - LATERAL DRAINAGE LAYER  
MATERIAL TEXTURE NUMBER 0

THICKNESS = 0.25 INCHES  
POROSITY = 0.8500 VOL/VOL  
FIELD CAPACITY = 0.0100 VOL/VOL  
WILTING POINT = 0.0050 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.0100 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 3.85999990000 CM/SEC  
SLOPE = 2.50 PERCENT  
DRAINAGE LENGTH = 461.0 FEET  
NOTE: 100.00 PERCENT OF THE DRAINAGE COLLECTED FROM THIS  
LAYER IS RECIRCULATED INTO LAYER # 2.

LAYER 5  
-----

TYPE 4 - FLEXIBLE MEMBRANE LINER  
MATERIAL TEXTURE NUMBER 35

THICKNESS = 0.06 INCHES  
POROSITY = 0.0000 VOL/VOL  
FIELD CAPACITY = 0.0000 VOL/VOL  
WILTING POINT = 0.0000 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.0000 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.199999996000E-12 CM/SEC  
FML PINHOLE DENSITY = 3.00 HOLES/ACRE

**Pescadito Landfill – Intermediate Conditions (100 ft of Waste): Scenario A**  
**w/Leachate Introduced**

FML INSTALLATION DEFECTS = 3.00 HOLES/ACRE  
FML PLACEMENT QUALITY = 3 - GOOD

LAYER 6  
-----

TYPE 3 - BARRIER SOIL LINER  
MATERIAL TEXTURE NUMBER 0

THICKNESS = 24.00 INCHES  
POROSITY = 0.4510 VOL/VOL  
FIELD CAPACITY = 0.4110 VOL/VOL  
WILTING POINT = 0.3110 VOL/VOL  
INITIAL SOIL WATER CONTENT = 0.4510 VOL/VOL  
EFFECTIVE SAT. HYD. COND. = 0.100000001000E-06 CM/SEC

GENERAL DESIGN AND EVAPORATIVE ZONE DATA  
-----

NOTE: SCS RUNOFF CURVE NUMBER WAS USER-SPECIFIED.

SCS RUNOFF CURVE NUMBER = 85.00  
FRACTION OF AREA ALLOWING RUNOFF = 75.0 PERCENT  
AREA PROJECTED ON HORIZONTAL PLANE = 1.000 ACRES  
EVAPORATIVE ZONE DEPTH = 60.0 INCHES  
INITIAL WATER IN EVAPORATIVE ZONE = 16.970 INCHES  
UPPER LIMIT OF EVAPORATIVE STORAGE = 37.620 INCHES  
LOWER LIMIT OF EVAPORATIVE STORAGE = 7.428 INCHES  
INITIAL SNOW WATER = 0.000 INCHES  
INITIAL WATER IN LAYER MATERIALS = 326.580 INCHES  
TOTAL INITIAL WATER = 326.580 INCHES  
TOTAL SUBSURFACE INFLOW = 10.00 INCHES/YEAR

EVAPOTRANSPIRATION AND WEATHER DATA  
-----

NOTE: EVAPOTRANSPIRATION DATA WAS OBTAINED FROM  
BROWNSVILLE TEXAS

STATION LATITUDE = 27.34 DEGREES  
MAXIMUM LEAF AREA INDEX = 1.00  
START OF GROWING SEASON (JULIAN DATE) = 0  
END OF GROWING SEASON (JULIAN DATE) = 367  
EVAPORATIVE ZONE DEPTH = 60.0 INCHES  
AVERAGE ANNUAL WIND SPEED = 11.60 MPH  
AVERAGE 1ST QUARTER RELATIVE HUMIDITY = 76.00 %  
AVERAGE 2ND QUARTER RELATIVE HUMIDITY = 75.00 %  
AVERAGE 3RD QUARTER RELATIVE HUMIDITY = 74.00 %  
AVERAGE 4TH QUARTER RELATIVE HUMIDITY = 76.00 %

**Pescadito Landfill – Intermediate Conditions (100 ft of Waste): Scenario A**  
**w/Leachate Introduced**

NOTE: PRECIPITATION DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY PRECIPITATION (INCHES)

<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
0.82	0.86	0.88	1.37	2.65	2.68
1.93	2.29	3.09	2.41	1.07	0.91

NOTE: TEMPERATURE DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS

NORMAL MEAN MONTHLY TEMPERATURE (DEGREES FAHRENHEIT)

<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
56.50	61.00	68.80	76.00	82.00	86.50
87.90	87.90	82.90	75.40	65.50	57.70

NOTE: SOLAR RADIATION DATA WAS SYNTHETICALLY GENERATED USING  
 COEFFICIENTS FOR BROWNSVILLE TEXAS  
 AND STATION LATITUDE = 27.34 DEGREES

\*\*\*\*\*

MONTHLY TOTALS (IN INCHES) FOR YEAR 1

	<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
PRECIPITATION	0.32	0.49	0.35	0.01	0.00	3.60
	0.00	2.82	3.54	2.89	0.72	1.56
RUNOFF	0.000	0.000	0.000	0.000	0.000	1.476
	0.000	0.242	0.538	0.442	0.000	0.000
EVAPOTRANSPIRATION	1.249	0.464	0.434	0.445	0.619	3.140
	0.854	1.751	3.657	2.545	0.739	1.566
SUBSURFACE INFLOW INTO LAYER 2	0.8493	0.7671	0.8493	0.8219	0.8493	0.8219
	0.8493	0.8493	0.8219	0.8493	0.8219	0.8493
LATERAL DRAINAGE RECIRCULATED INTO LAYER 2	0.0043	0.0002	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**Pescadito Landfill – Intermediate Conditions (100 ft of Waste): Scenario A**  
**w/Leachate Introduced**

LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
LATERAL DRAINAGE RECIRCULATED FROM LAYER 4	0.0043	0.0002	0.0000	0.0000	0.0000	0.0000
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

-----  
MONTHLY SUMMARIES FOR DAILY HEADS (INCHES)  
-----

AVERAGE DAILY HEAD ON TOP OF LAYER 5	0.000	0.000	0.000	0.000	0.000	0.000
STD. DEVIATION OF DAILY HEAD ON TOP OF LAYER 5	0.000	0.000	0.000	0.000	0.000	0.000

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ANNUAL TOTALS FOR YEAR 1

	<u>INCHES</u>	<u>CU. FEET</u>	<u>PERCENT</u>
PRECIPITATION	16.30	59169.004	100.00
RUNOFF	2.698	9793.375	16.55
EVAPOTRANSPIRATION	17.462	63387.918	107.13
SUBSURFACE INFLOW INTO LAYER 2	10.000000	36300.000	61.35
RECIRCULATION INTO LAYER 2	0.004464	16.203	0.03
DRAINAGE COLLECTED FROM LAYER 4	0.0000	0.000	0.00
RECIRCULATION FROM LAYER 4	0.004464	16.203	0.03
PERC./LEAKAGE THROUGH LAYER 6	0.000001	0.002	0.00
AVG. HEAD ON TOP OF LAYER 5	0.0000		
CHANGE IN WATER STORAGE	6.140	22287.699	37.67
SOIL WATER AT START OF YEAR	326.580	1185485.750	
SOIL WATER AT END OF YEAR	332.720	1207773.500	

**Pescadito Landfill – Intermediate Conditions (100 ft of Waste): Scenario A**  
**w/Leachate Introduced**

SNOW WATER AT START OF YEAR	0.000	0.000	0.00
SNOW WATER AT END OF YEAR	0.000	0.000	0.00
ANNUAL WATER BUDGET BALANCE	0.0000	0.009	0.00

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AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 1 THROUGH 1

	<u>JAN/JUL</u>	<u>FEB/AUG</u>	<u>MAR/SEP</u>	<u>APR/OCT</u>	<u>MAY/NOV</u>	<u>JUN/DEC</u>
<u>PRECIPITATION</u>						
TOTALS	0.32 0.00	0.49 2.82	0.35 3.54	0.01 2.89	0.00 0.72	3.60 1.56
STD. DEVIATIONS	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
<u>RUNOFF</u>						
TOTALS	0.000 0.000	0.000 0.242	0.000 0.538	0.000 0.442	0.000 0.000	1.476 0.000
STD. DEVIATIONS	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
<u>EVAPOTRANSPIRATION</u>						
TOTALS	1.249 0.854	0.464 1.751	0.434 3.657	0.445 2.545	0.619 0.739	3.140 1.566
STD. DEVIATIONS	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000
<u>SUBSURFACE INFLOW INTO LAYER 2</u>						
TOTALS	0.8493 0.8493	0.7671 0.8493	0.8493 0.8219	0.8219 0.8493	0.8493 0.8219	0.8219 0.8493
<u>LATERAL DRAINAGE RECIRCULATED INTO LAYER 2</u>						
TOTALS	0.0043 0.0000	0.0002 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
STD. DEVIATIONS	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000

**Pescadito Landfill – Intermediate Conditions (100 ft of Waste): Scenario A**  
**w/Leachate Introduced**

LATERAL DRAINAGE COLLECTED FROM LAYER 4

TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

LATERAL DRAINAGE RECIRCULATED FROM LAYER 4

TOTALS	0.0043	0.0002	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

PERCOLATION/LEAKAGE THROUGH LAYER 6

TOTALS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

-----  
AVERAGES OF MONTHLY AVERAGED DAILY HEADS (INCHES)  
-----

DAILY AVERAGE HEAD ON TOP OF LAYER 5

AVERAGES	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
STD. DEVIATIONS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 1 THROUGH 1

	INCHES		CU. FEET	PERCENT
PRECIPITATION	16.30	( 0.000)	59169.0	100.00
RUNOFF	2.698	( 0.0000)	9793.37	16.552
EVAPOTRANSPIRATION	17.462	( 0.0000)	63387.92	107.130

**Pescadito Landfill – Intermediate Conditions (100 ft of Waste): Scenario A**  
**w/Leachate Introduced**

SUBSURFACE INFLOW INTO LAYER 2	10.00000		36300.000	61.34969
DRAINAGE RECIRCULATED INTO LAYER 2	0.00446 ( 0.00000)		16.203	0.02738
LATERAL DRAINAGE COLLECTED FROM LAYER 4	0.00000 ( 0.00000)		0.000	0.00000
DRAINAGE RECIRCULATED FROM LAYER 4	0.00446 ( 0.00000)		<span style="border: 1px solid black;">16.203</span>	0.02738
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.00000 ( 0.00000)		0.002	0.00000
AVERAGE HEAD ON TOP OF LAYER 5	0.000 ( 0.000)			
CHANGE IN WATER STORAGE	6.140 ( 0.0000)		22287.70	37.668

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PEAK DAILY VALUES FOR YEARS	1 THROUGH	1
	----- (INCHES)	----- (CU. FT.)
PRECIPITATION	1.32	4791.600
RUNOFF	0.703	2553.3096
DRAINAGE RECIRCULATED INTO LAYER 2	0.00163	5.90765
DRAINAGE COLLECTED FROM LAYER 4	0.00000	0.00000
DRAINAGE RECIRCULATED FROM LAYER 4	0.00163	<span style="border: 1px solid black;">5.90765</span>
PERCOLATION/LEAKAGE THROUGH LAYER 6	0.000000	0.00004
AVERAGE HEAD ON TOP OF LAYER 5	0.001	
MAXIMUM HEAD ON TOP OF LAYER 5	<span style="border: 1px solid black;">0.009</span>	
LOCATION OF MAXIMUM HEAD IN LAYER 4 (DISTANCE FROM DRAIN)	0.0 FEET	
SNOW WATER	0.00	0.0000
MAXIMUM VEG. SOIL WATER (VOL/VOL)		0.2828

**Pescadito Landfill – Intermediate Conditions (100 ft of Waste): Scenario A**  
**w/Leachate Introduced**

MINIMUM VEG. SOIL WATER (VOL/VOL)

0.2006

\*\*\* Maximum heads are computed using McEnroe's equations. \*\*\*

Reference: Maximum Saturated Depth over Landfill Liner  
 by Bruce M. McEnroe, University of Kansas  
 ASCE Journal of Environmental Engineering  
 Vol. 119, No. 2, March 1993, pp. 262-270.

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FINAL WATER STORAGE AT END OF YEAR 1

LAYER	(INCHES)	(VOL/VOL)
1	3.3672	0.2806
2	308.6690	0.2572
3	9.8571	0.4107
4	0.0026	0.0100
5	0.0000	0.0000
6	10.8240	0.4510
SNOW WATER	0.000	

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